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A MONTHLY JOURNAL DEVOTED TO THE ELEVATOR AND GRAIN INTERESTS.

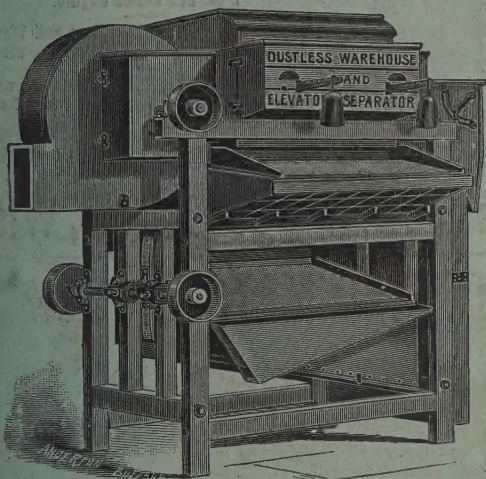
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MITCHELL BROS. COMPANY,
(INCORPORATED.)

VOL. VI.

CHICAGO, ILLINOIS, APRIL 15, 1888.

No. 10.

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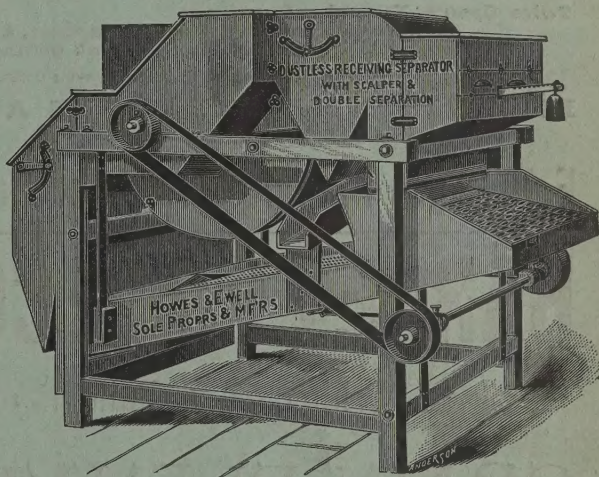
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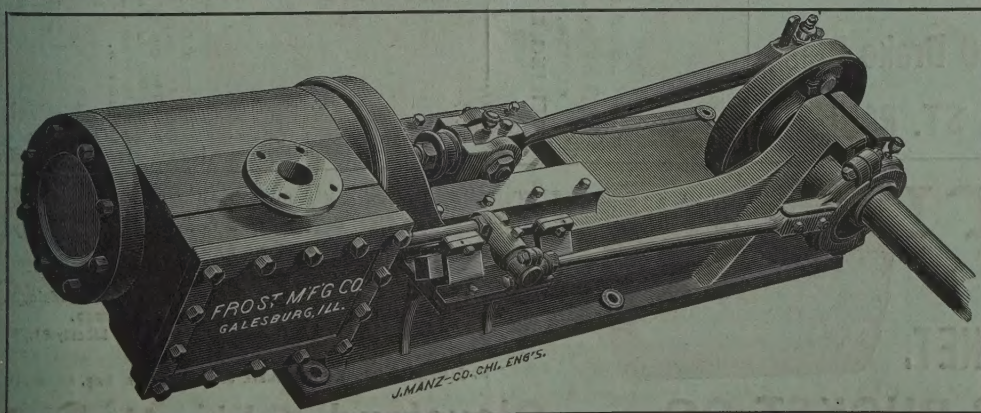
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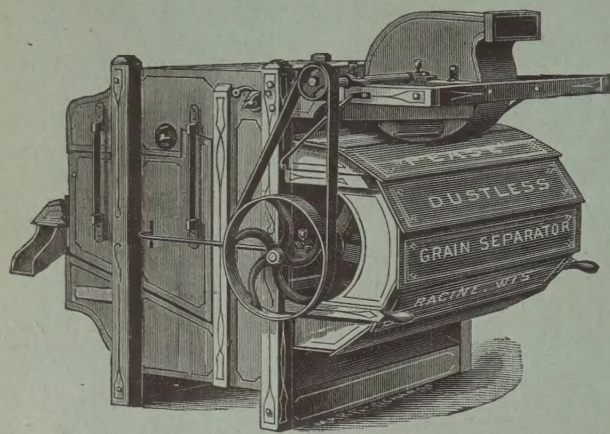


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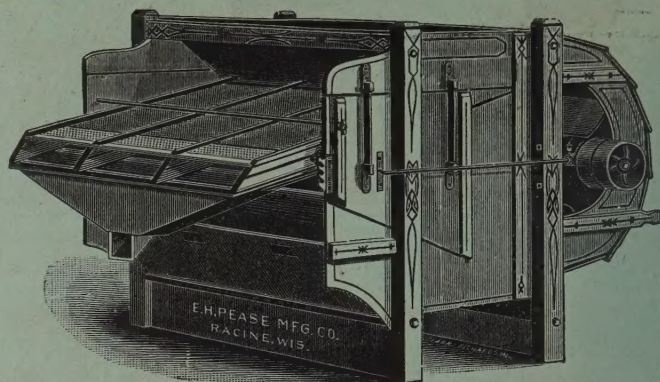
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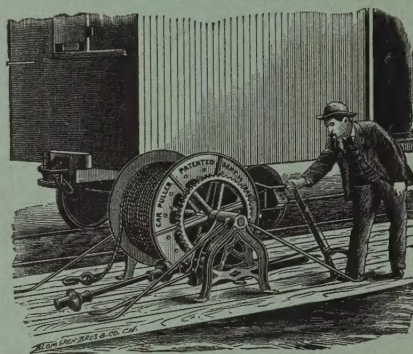


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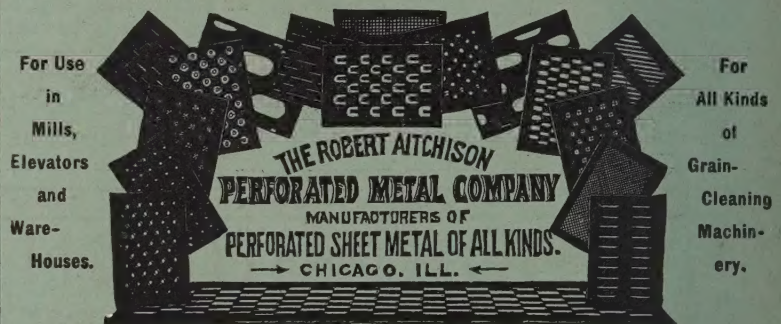
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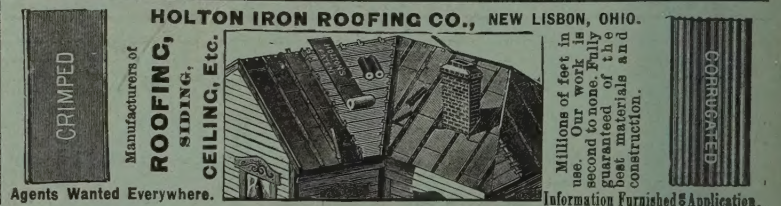
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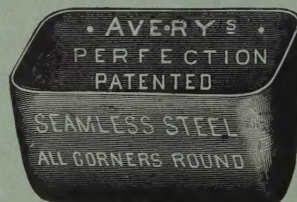
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THE GRAND TRUNK TRANSFER ELEVATOR AT ELSDON, ILL.

During its last session the Legislature of Illinois passed an act compelling the railroads to give hopper-scale weights on transferred grain. The intent of the act was to make the roads transferring grain which did not go in to store in the city elevator's construct transfer houses of such a character that both shipper and receiver should be afforded reasonable protection. For, "track weights" have been the nightmare both of Western shippers and Eastern receivers, and both classes were pleased that the hopper-scale law should place the business on a more equitable footing than was possible under the system of weighing the grain in cars on track.

One of the first railroads to comply with the requirements of the new law was the Chicago & Grand Trunk Railway. While their house has only been completed about a month, the delay was due solely to the fact that the Grand Trunk people intended to put up a model house; and indeed they have succeeded in getting one that is satisfactory not only to themselves, but to the grain public as well.

Our illustration shows this model establishment, which is located at Elsdon Station, Chicago. The building is 108 feet long, 47 feet wide, and 77 feet high.

Two tracks run entirely through the building, the elevating machinery being grouped in the platform space between the tracks. It has a loading and unloading capacity of six cars of grain at one time, and the total transferring capacity of the house is 100 cars in ten hours. It was built with special reference to compactness and ease of operation, and in this respect, as in others, it is a noteworthy success.

The engine and boiler house is at the end of the elevator not shown in our engraving. The power is supplied by a 100-horse power Buckeye Automatic Engine. Im-

mense car-pulling machinery is attached to the engine shaft, which can pull fifty cars or more at a time. The grain is taken from the discharging cars by Coker-Metcalf Power Shoveling Machines, and is dumped in the sinks. There are six receiving elevator legs which carry the grain from the sinks to the top of the building, where it is dropped into the twin hopper scales, of which there are six, each having a capacity of 1,600 bushels. The elevators have an elevating capacity of 7,000 bushels per hour.

the floor below. The great advantage of this gear-wheel system in driving elevators lies in the fact that it is almost impossible to choke down the elevators when driven in this manner. A novel and very effective device has been introduced to distribute the grain from the heads of the elevators to the twin hopper scales. It is called the Metcalf Switch Valve, and is used in place of the old-style turn head. It is positive in its action, distributing just the amount of grain desired into the hoppers.

This transfer house was built after the plans of Metcalf, Macdonald & Co., 125 and 127 Ontario street, Chicago, who also superintended the work to successful completion. The machinery was purchased of Webster & Comstock Mfg. Company of this city, well known as the manufacturers of mill and elevator specialties. Both firms are to be congratulated on the manner in which the work was accomplished.

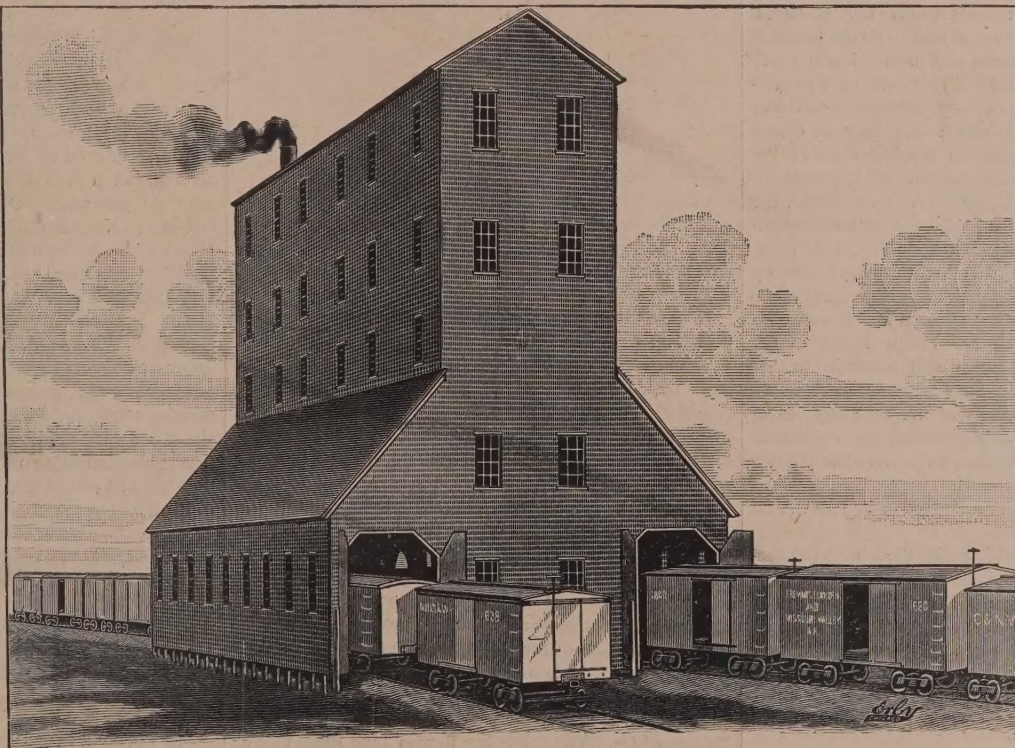
The formal opening of the house occurred on March 19, when a large delegation of gentlemen from the Chicago Board of Trade accepted the invitation of the Traffic Manager of the Chicago & Grand Trunk Railway, Mr. George B. Reeve, to run out and examine the new elevator. After the premises had been closely examined, a committee was appointed to express the opinion of the visiting party. The report was as follows:

"The representatives of

the receivers and shippers of grain of the city of Chicago, having this day visited and inspected the admirable new elevator for the transfer of grain, recently erected and put in operation by the Chicago & Grand Trunk R. R., declare:

"First—Their appreciation of the enterprise and public spirit manifested by said railway company in providing such modern and efficient facilities for the rapid and accurate dispatch of business, as will meet the wants and wishes of the receiving and shipping grain trade of this city.

"Second—That the new transfer elevator of the said



TRANSFER ELEVATOR OF THE CHICAGO & GRAND TRUNK RAILWAY AT ELSDON, ILL.

From these scales the identical grain and the identical weight of it is dropped into the east-bound cars for shipment. The Metcalf Bifurcated Spouts are used for loading the cars. Arrangements will be made to record the weights by electricity.

There are a number of striking features about this house, all of which we have not space to mention in this connection. We may note, here, however, that each of the receiving elevators is run with a gear wheel and pinion. To the pinion is attached a Macdonald Friction Clutch, which is shipped in and out by the weighman on

railway company is a model one, and is in every particular the most complete of any with which we are acquainted. With ample provision for the transfer under cover of ninety to 100 carloads per day, the identity of each is preserved, and the house is so constructed as to insure accuracy of weighing and avoidance of loss or waste.

"Third—That as this valuable service is rendered absolutely without any charge to the buyer or seller, or tax of any kind upon the grain, therefore the shippers of the West and the buyers of the East are to be congratulated, and the C. & G. T. Ry. Company complimented upon the completion of this important work.

"Fourth—It is so plainly for the interests of all parties in the trade to commit their consignments to the care of railway lines making such provisions for the trade's protection, that it must be a matter of but brief time when none other shall be regarded as worthy of patronage."

PROPELLING CANAL BOATS BY SUSPENSION CABLES.

The bill introduced by Senator Cantor in the New York legislature, and which has been the subject of much discussion during the session, is for the purpose of having experiments made on an invention of Mr. A. Schausten, Civil Engineer of Washington, D. C. This system is a device for propelling canal boats by suspension cables. The inventor claims that by this method greater speed is obtained at less cost and with less labor, that fewer accidents will occur, and that less time will be required to go over a certain distance. This would, of course, reduce the cost of transportation, an important factor in the grain trade. A late number of the *Canal Advocate* contains a cut of the proposed method and a very clear description of its workings.

A GRAIN ELEVATOR TRUST.

The Nebraska Elevator and Grain Company of Lincoln, Neb., has filed articles of incorporation; capital stock \$5,000,000; incorporators, Thomas Louwey, C. F. Brown, Patrick Egan and other well known grain dealers of Southern Nebraska, who control about 130 elevators. The object of the corporation is said to be the building and operating of grain elevators, and the buying and selling of grain, but the main point is to secure cheap transportation to market. With the large number of elevators under their management, of which any may be closed when deemed necessary, and all sharing alike in the profits, the company will practically control the whole of the South Platte country business. In an editorial, the *Omaha Daily Bee* styles this organization a "lawless combination," and says "it has been formed in palpable violation of the act passed by the last legislature prohibiting pooling and other combinations by grain and cattle dealers." It further says that, "with all the elevators on the Burlington lines south of the Platte, inside of the grain trust, the price which grain will command in that section of the country will be absolutely fixed by the new combination." The officers of the company are of the opinion that the scheme is a good one, and will benefit not only the stockholders but the producers. The expense of handling grain will be lessened, freight rates reduced and a greater price be paid, resulting in more profit to all concerned.

The following is the official notice filed with the Secretary of State of Nebraska April 6:

Notice is hereby given that the subscribers hereto have associated themselves together and adopted articles of incorporation in the manner provided by law, as a body corporate and politic, under and in pursuance of the statute of the state of Nebraska, and that

First. The name of said corporation is "Nebraska Elevator and Grain Company."

Second. The principal place of transacting the business of such corporation is Lincoln, Neb.

Third. The general nature of its business is to be the owning and operating of grain elevators in Nebraska and adjoining states and buying, selling, storing and shipping of corn, wheat, rye, oats, barley, flaxseed and other grain.

Fourth. The amount of capital stock authorized in said corporation is five million dollars, payable, ten (10) per cent. at the date of subscription and the residue when required by the board of directors, but it is provided that said board may receive conveyances to such incorporation of grain elevators, cribs, warehouses, machinery and other property necessary and convenient to be used in the

business of said corporation at the fair value thereof, in payment to an equal amount for subscriptions to said capital stock.

Fifth. The corporation is to continue to exist fifty (50) years, beginning at the time of filing of said articles of incorporation in the clerk's office of Lancaster County, Neb., on the 22d day of March, 1888.

Sixth. The highest amount of indebtedness or liability to which the corporation is at any time to subject itself is a sum equal to two-thirds of the capital stock actually subscribed.

Seventh. The affairs of the corporation are to be conducted by a board of nine (9) directors, who are to choose from among their own number a president, vice-president, secretary and treasurer.

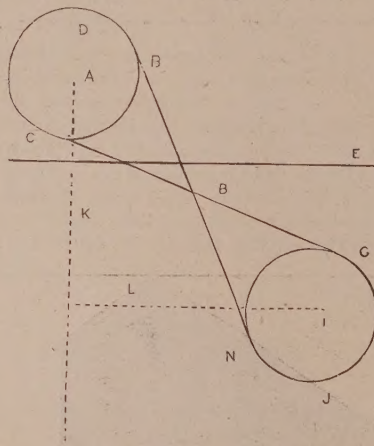
Witness our hands this 22d day of March, 1888:

Thomas W. Lowery, Patrick Egan, Joseph H. Connor, J. M. Sewell, Mason Gregg, C. T. Brown, William Laudon, O. T. Hulburt, H. M. Oliver, D. W. Wirt, W. J. Crandall, F. E. White, M. Morrissey, R. D. Lamson.

CUTTING HOLES FOR CROSS AND QUARTER-TWIST BELT.

Make a draught or sketch of the pulleys that you want the belt to run on, any scale so as to make it resemble cut. Measure from plumb line *K* on draught to where the belt strands go through floor. Transfer this measure on floor, on the center line of face of pulley, or pulley face.

We now have the places for holes of straight belt, but



not angle for cross belt, and as the belt makes an angle of 90°, or the fourth part of a circle, between point of contact on pulley and where it crosses, we will proceed to find the distance from point of contact, *C*, to cross, *F*, which is forty-six inches.

Next, find the distance from point of contact, *C*, to floor line, *L*, which is twenty-four inches, then we have the following: $90^\circ \times 24' \div 46' = 46$ 22-23 degrees, the angle required. Proceed in like manner with the other strand of the belts. Now set bevel to the required number of degrees, and lay out holes on floor, but always work from center line of the face of pulleys.—*Manufacturers' Gazette*.

NORTHWESTERN GRAIN ELEVATORS.

Dakota and the rest of the Northwestern territory are making preparations to store all the wheat that can be raised in that part of the world. Their ideas are as large as their fields, and they do things on a scale of magnificence which must be astonishing to the farmer coming from the cramped and stony patches of ground in the old Eastern states. The following figures give some idea of the grain industry in that wonderful country. In Dakota on June 30, 1887, there were 241 licensed grain elevators, having a storage capacity of 8,600,000 bushels of grain, besides which there are 265 grain elevators that have applied for licenses but had not completed their bonds, and 308 elevators that claim to do a private grain storage business. The Port Arthur elevators and sheds had in the middle of February 444,000 bushels of wheat in storage, and the Fort William elevators and sheds, 1,492,000 bushels of grain. The total storage capacity at the latter point is now 1,800,000 bushels. The Canadian Pacific road will build another elevator of 750,000 bushels' capacity, making an aggregate storage capacity of 2,500,000 bushels.

SOME BOSTON ELEVATORS.

The elevator owned by the Hoosac Tunnel Dock and Elevator Company is 167x80 feet, 138 feet high, and is capable of storing 600,000 bushels of grain with room to enlarge to 1,000,000 if necessary. It can easily discharge 150 cars of grain per day by steam shovels. There are also 12 hydraulic elevators for storing goods. The pumps have power to raise four tons per lift, and the aggregate simultaneous lifting power is 48 tons. The company has made a contract for another elevator to be completed May 1, 1888, of 450,000 bushels' capacity, a measure which is said to be necessary to prevent a diversion of trade from Boston and from its direct route with the West.

The Boston & Lowell Road has a transfer elevator at Mystic wharf, Charlestown, capable of delivering 4,000 bushels of grain per hour.

The Boston & Albany has an elevator with a capacity of 500,000 bushels. Seventy-five carloads of grain a day can be unloaded. The Grand Junction Elevator at East Boston belongs to the same company and has a capacity of 1,000,000 bushels with an engine of 500 horse power. It can discharge 120 cars of grain per day, has 12 unloading and 6 shipping elevators, can deliver 20,000 bushels per hour, and being right alongside the dock delivers grain direct to vessels by shipping spouts.

The New York & New England Company has a large elevator at their docks in South Boston, which was built in 1882. Its capacity is 520,000 bushels and it can deliver to two vessels at a time, 10,000 bushels per hour each. The engine is of 550-horse power and powerful enough for any work required. This elevator can transfer 150 cars equal to 80,000 bushels of grain per day. The vessels can be filled on the belt or gallery system either 200 feet or 1,475 feet distant. The Merchants' Elevator with the mills is connected with all the freight railroads. Its capacity is 200,000 bushels, and it is used principally for local distribution.

CONDITION OF WINTER GRAIN.

April statistical returns to the Department of Agriculture relate to the condition of winter grain and farm animals. The season for seeding was a long three months in some of the Southern states, and the appearance, as winter set in, was uneven, though the plants were rooted. In the states affected by summer drouth there was slow germination in the soil not well pulverized, causing thin stands in such areas. Only partial winter protection was had in the Northern belt. The variable temperature of March seriously injured the plant in the central states of the West, and some loss from winter killing appears, even in Texas. On the Atlantic coast winter injury was very slight. South of Maryland the temperature was mild and favorable. The present appearance of the crop is quite unfavorable. As spring is late and the present growth of late sown grain comparatively small, favorable spring weather might make a material improvement. The average of present condition is 82 per cent. lower than in recent years, excepting only 1883 and 1885, when the averages were 80 and 76 per cent. respectively. The averages of the states of principal production are as follows: New York 94, Pennsylvania 90, Ohio 68, Michigan 76, Indiana 74, Missouri 83 and Kansas 97 per cent. The condition of rye is much higher, standing at 93.5 for the entire breadth. The condition of farm animals is comparatively good. Estimated losses from disease and casualties are averaged as follows for each 1,000 animals: Horses 18, cattle 29, sheep 46, and swine 78 per cent.

MILWAUKEE'S GRAIN TRADE.

The annual report of the secretary of the Milwaukee Chamber of Commerce, gives a favorable showing of the business prosperity of that city. During the past year a total of 18,527,000 bushels of all kinds of grain was received, exclusive of through consignments, an increase of nearly 1,000,000 bushels over the receipts of the preceding year. The receipts of flour were 2,350,355 barrels, against 3,659,377 barrels in 1886, the competition of new routes of transportation to the East being the cause of the decrease. The amount of flour manufactured by the mills of the city was 1,214,648 barrels, a gain of 261,846 barrels over the previous year, and with one exception the largest output of any year on record.

FREE GRAIN DELIVERY.

At the annual meeting of the Milwaukee Chamber of Commerce, held April 9, the report of the directors was read. The question of free grain delivery was fully discussed in the report, and arguments in its favor were brought forward as follows: "It has become a settled conviction in the minds of people engaged in the grain trade, at least, that the grain elevator should be regarded and conducted, not as a private enterprise, but rather as a necessary part of the equipment of the railroad and its paramount object be to facilitate the traffic of the road, and in that way add to its profits and usefulness. As railway managers are not slow to 'catch on' to the drift of public sentiment, especially when that sentiment is on the side of increased profits as well as the necessities of commerce, we look to the day as not far in the future when the transportation of grain will be placed on an equality with that of other commodities by the inauguration of a free delivery of this most important article that enters into the commerce and traffic of this part of the country. We are well aware that the reform which we advocate is a startling innovation upon a practice that has had the sanction of long usage—the result of circumstances and necessities that no longer exist—and we candidly believe that the time has arrived for a radical change in this respect. That Milwaukee would be greatly benefited by such a change needs no argument to prove, and we believe it equally certain that the great railway system of which this city is the chief local point, with its splendid elevators not used to one-half of their capacity, would be a large sharer in these benefits. With a free delivery of grain through the elevators, we should no longer hear of the blockading of miles of track and the delay of cars that are urgently needed for the purposes of transportation, in the efforts to carry on the grain trade and avoid the initial elevator charge, which is now so generally regarded as an unjust tax upon property sent to market for immediate disposal. Of all the suggestions that have been made looking to the improvement of the grain trade of Milwaukee, we regard free trade as by far the most important, as well as the most effectual method by which our railroads can hope to successfully compete with their new rivals in the carrying trade, both to the north and to the south of them; and through the channels which carry the grains of the Northwest will the transportation of other heavy commodities naturally and inevitably follow."

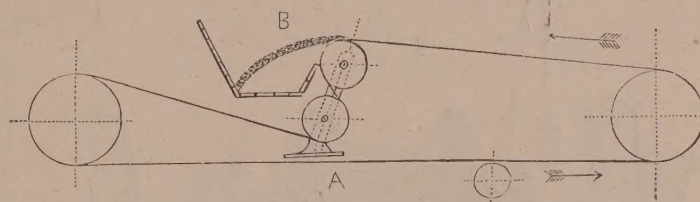
OLD CLOTHES.

When a millowner or elevator proprietor is pursuing his daily doings in his mill or elevator, he is perfectly justified in wearing old clothes as long as they cover his nakedness and keep him comfortable. It is his own business, and even if he does appear on the street or at church in company with his wife in a suit of clothes, that was in vogue on Broadway a score of years ago, he can hold his head as high as any one. Clothes do not make the man, and it is better to wear a shabby suit that is paid for than a better one, and owe the tailor for it. What matters if your hat is ten years behind the times if your bank account is growing and you are saving money. Good and noble economy is commendable, but be sure that your economy is true economy. It is all right to economize in your personal expenses and luxuries, and in expenses around your mill or elevator, but when it comes to your machinery the question of economy calls for nice distinction, and here it is that so many men find themselves at fault. The temptation is strong to buy goods and machinery simply because they are cheap, rather than spend just a little more and get goods and machines that will last twice as long and do better work. The market is flooded at the present time with goods and machines that are made to sell and not to wear. They look all right and are praised to the skies, and are offered at such tempting figures that many a man is caught, and only after settlement is made does he find that he has saved nothing, but, on the contrary, has lost much by the selection he has made. It is often discouraging to reliable and conservative houses, who insist upon turning out goods of the highest character to find that they are constantly losing orders simply on the score of price, when probably the difference in price is very small, and intrinsically there is no comparison between the goods and machines offered. If millers and elevator men would only take a little time

and inquire into the quality of the goods offered at our prices and compare them with the productions of responsible houses, they would find much profit in the information that they would obtain. Take an article like an Elevator Bucket and Bolt. Any consumer is competent to judge of the merits of the different makes, and yet the majority buy from price alone and often regret their choice. Among the old houses making elevating and conveying machinery is Thornburg & Glessner of Chicago, who, in all of their catalogues and printed matter, make the strong claim that their goods are of the highest quality, and ask purchasers not to believe their statements till they have investigated for themselves the merits of their goods, and subjected them to the most rigid tests in comparison with other makes, and if their goods are not worth all that they ask for them, they do not expect to receive an order. All of their energies have been directed toward improving the quality of their specialties, and this, too, in the face of a declining market and of strong competition from makers of cheaper goods. They have an abiding faith in the "survival of the fittest," and insist that quality will triumph over price, and that poor goods will be relegated to the rear at no distant day.

TAKING GRAIN FROM BELT.

The diagram illustrates the method of taking off grain from a band when it is required to be delivered at any point between the ends. The frame and guides A can be moved on rods or rails either way horizontally, as also can



the hopper B, which is so placed that it catches the grain when it is projected from the band. This apparatus, which is now in very common use, was first invented for a Liverpool warehouse. Practically it forms a rather complex arrangement, but in principle the diagram is accurate.—*Millers' Gazette*.

SOME CURIOSITIES IN GOVERNMENT CROP REPORTS.

BY R. JAMES ABERNATHY.

In 1885 the government reports placed the wheat crop at 357,000,000 bushels. On the first of March, the same year, it reported stocks on hand at 212,000,000 bushels. From March 1, 1885, to March 1, 1886, we exported 83,000,000 bushels, consumed 277,000,000 and planted 51,000,000 bushels, leaving the account standing thus:

	Bushels.	Bushels.
Stocks on hand March 1, 1885.....	212,000,000	
Crop 1885.....	357,000,000	
Total supply.....	569,000,000	
Consumption for same period.....	277,000,000	
Export " " " ".....	83,000,000	
Seeding.....	51,000,000	
Total.....	411,000,000	

Balance March 1, 1886.....158,000,000

The government report of supplies on hand March 1, 1886, was 159,000,000 bushels. It will thus be seen that the reports for that year were very harmonious. But we will consider the matter a little further.

	Bushels.	Bushels.
Supplies March 1, 1885.....	212,000,000	
Crop 1885.....	357,000,000	
Crop 1886.....	456,000,000	
Total supplies.....	1,025,000,000	
Exports March 1, '85, to March 1, '86.....	83,000,000	
Consumption " " " ".....	277,000,000	
Seeding.....	51,000,000	
Exports March 1, '86, to March 1, '87.....	140,000,000	
Consumption " " " ".....	284,000,000	
Seeding.....	52,000,000	
Total distribution.....	887,000,000	

Balance on hand March 1, 1887.....138,000,000

It will be remembered that on March 1, 1887, the government reported supplies on hand at 179,000,000 bushels. There is a wonderful disparity and lack of harmony there.

But we are not through, we want to consider it down to the present year as briefly as possible.

	Bushels.	Bushels.
Supplies March 1, 1885.....	212,000,000	
Crops 1885, 1886, 1887.....	1,270,000,000	
Total supplies three years.....	1,482,000,000	
Exports March 1, '85, to March 1, '88.....	368,000,000	
Consumption " " " ".....	852,000,000	
Seeding.....	154,000,000	

Total.....1,374,000,000
Balance on hand March 1, 1888.....108,000,000

The government report says there was 170,000,000 bushels of wheat on hand March 1, 1888. It will be observed that there is an alarming disparity here.

We will make another analysis to get at recent supplies.

On March 1, 1886, the supply on hand was reported at 159,000,000 bushels, which will now be used as a basis.

	Bushels.	Bushels.
On hand March 1, 1886.....	159,000,000	
Crops 1886, 1887.....	913,000,000	

Total supplies.....1,072,000,000

Two years' exports.....	285,000,000
Consumption.....	575,000,000
Seeding.....	103,000,000
Total distribution.....	963,000,000

On hand March 1, 1888.....109,000,000

It will be again observed that when we take the reported stock on hand March 1, 1885, and add to it the crops since reported harvested, we have left on hand March 1, 1888, 108,000,000 bushels, after deducting total distribution for that period.

By taking stock on hand March 1, 1886, adding two crops and proceeding with the calculations in the same way, we find a remainder on March 1 of the present year of 109,000,000 bushels, which makes all reports and calculations for the years 1885 and 1886 substantially agree. But when we come to make similar comparisons for the last two years, there is a woeful discrepancy.

By accepting as a fact that the amount reported on hand March 1, 1885, was 212,000,000 bushels, and adding to it the crop of 1885, then deducting total distribution, we have, as previously stated, 158,000,000 bushels, and the government reported 159,000,000 bushels; that is very close and near enough.

But when we pursue the same course to ascertain the quantity on hand March 1, 1887, we find it but 138,000,000 bushels, instead of 179,000,000 bushels, as reported by the government. And again, when we pursue the same course to ascertain the quantity on hand March 1 of the present year, we find but about 109,000,000 bushels instead of about 170,000,000, as reported by the government.

All the figures used in the above calculations are government figures, and the conclusion is irresistible that Secretary Dodge has made a serious blunder somewhere.

There was undoubtedly more wheat on hand March 1 of the present year than these figures indicate, which proves conclusively that the supply on March 1, 1885, was reported much too small, which is also sustained by calculations made previous to that time. However, the most important factor in the case is this: By taking the report of stocks on hand March 1, 1885, and the same on March 1, 1888, we find the total decrease in stock during the three years to be only 42,000,000 bushels. While the figures, all government figures too, show clearly and incontrovertably, that the decrease has been about 103,000,000 bushels, which makes a vast deal of difference in the immediate future of supplies and prices.

BUFFALO ELEVATOR CHARGES.

A plan is projected at Buffalo, N. Y., to have the railroads pay part of the storage rates on grain. All grain arriving at that point by rail and intended for grading, will be run into store on arrival. The total charge on wheat and corn is to be three-fourths of a cent per bushel, of which the railroad is to pay one fourth of a cent, and the elevator will rebate a similar amount. This will leave only one fourth for the grain to pay, this to include loading and switching charges. On oats the railroads will pay only one-eighth of a cent, and the owner will have to contribute three-eighths.

The local committee of railroad agents will submit the plan to the general managers of the railroads interested, and it is believed that it will meet their approval. The charges will then, it is said, be lower than for a like service at any other market in the world.

BUILDING OF ELEVATORS.

BY R. JAMES ABERNATHY.

It was thought in times past, that but little skill was required in elevator building, and if we take many of the old structures scattered over the country as examples, we are forced to the inevitable conclusion that but little skill was practiced in their construction. It is a great mistake for any man to attempt to build an elevator on the "go it blind" plan, relatively as much so as to attempt to build a flour mill in the same way. Before beginning to build, a well defined plan should be decided upon and adopted, and adhered to from beginning to end, unless unforeseen obstacles intervene, rendering it impossible to carry out the design in detail. In such cases of course, plans must be adapted to changed conditions and circumstances.

As a rule a general design will answer for all country elevators of about a given size and intended for certain specified and like purposes, but it is quite rare that exact details can be carried out in any two houses. One of the chief difficulties in the way of constructing cheap, simple and convenient houses, lies in the lay of the ground. On elevated ground, lying high above surface and spring water, the task becomes easy, but on low lying ground, so frequently encountered in flat, prairie sections, the reverse is true.

Below the northern wheat belt line, all country elevators are built and fitted up with the view to handling the corn in the ear. For that purpose it is always important to go well down in the ground with portions of the foundation; quite frequently as much as twenty feet below the surface is reached. In flat, watery sections, such a depth is impracticable, thus rendering the designing of a simple and convenient house a troublesome matter. In many cases it is impossible to go more than four feet below the surface without striking either surface or spring water. Surface water in such cases is found along rivers like the Arkansas, for instance, where the soil is loose and sandy, and where the water rises and falls with the rise and fall of the river. The only protection under such trying circumstances is to make the pit watertight, either by using brick and good cement, or else by building a square iron tank of, say No. 12 sheet iron, the upper edge of which should be above high water mark. For corn shelling purposes all such tanks or pits should be at least ten feet square, and as deep as may be considered practicable or deemed advisable.

To make an elevator convenient for shelling and handling corn, when depth is not obtainable, as for above mentioned reasons, then height must be obtained; that is, all that is lost in depth must be added to the height, or distance from the ground to top of driveway where the corn is dumped into sheller. Where there is plenty of ground that is easily done, but adds materially to the cost of building approaches to drive on and off. When the owner of the elevator has but a small lot of ground he is barred from doing that, and the matter is further complicated and the effort to build a simple and convenient house is rendered still more difficult.

A proper and very convenient basement for a small elevator should extend about four feet above the surface or rather track level. That will bring the floor of the house about on a level with the ordinary freight car floor, and it should extend below the surface three and a half to four feet; below that again the pit should extend as deep as desired or as can be obtained. It will of course be understood that the depth of basement asked for can only be sought or found where surface water conditions will permit. The construction of such a basement under the entire building, might sometimes be considered a waste of room and an unnecessary expense, nevertheless it makes it very convenient and allows ample room and light for taking care of machinery and for spouting from the various bins directly to boot of elevator.

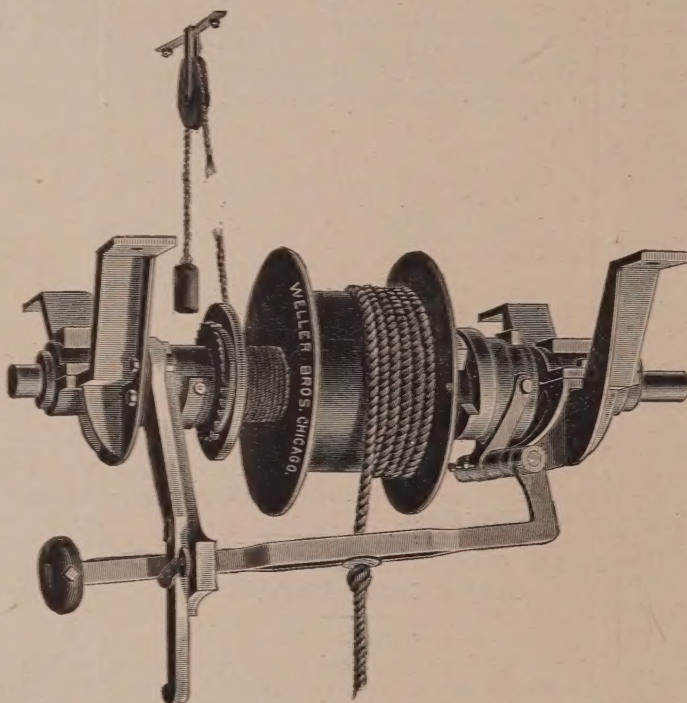
The basement should be directly connected with the engine room, so that the engineer, whose duty it should be to take care of the machinery, can pass in and out freely. It should also be connected with the first floor of the house by means of an easy stairway, not a perpendicular ladder, which is abominable in any kind of an elevator. The walls should be of stone or brick, and well built on firm earth foundation that will not yield and

cause the building to settle when loaded down with grain. There should be windows opening on the track side and also the opposite end from engine room. On the local side there would have to be an opening in the wall as large as the sheller pit, and with the opening jambs of the wall extending down to bottom of pit, as in all cases the pit should run part way under the driveway.

For the driveway there might be a light outer wall, but usually posts resting on stone or brick piers are all that is required to support the driveway. The posts should be, say nine inches square, and run from piers high enough to support roof, the length being determined by distance of the driveway floor from the ground. Beneath the driveway must be a stout hopping running to sheller or elevator, or both, into which on one side the ear corn is to be dumped, and on the other shelled corn or other loose grain.

THE DYBLIE AUTOMATIC POWER GRAIN SHOVEL.

Among the latest improvements in appliances for handling grain, we note the Dyblie Automatic Power Grain Shovel, manufactured by Messrs. Weller Bros. of 94 and



THE DYBLIE AUTOMATIC POWER GRAIN SHOVEL.

96 Wendell street, Chicago. Simplicity of construction is one of the principal features to recommend this device to the users of power shovels. After once set in place, there is nothing to get out of order. No delicate springs or complicated clock-like machinery enter into its construction. It is not liable to be clogged by the dust which invariably accompanies the unloading of grain in mills or elevators.

This machine is perfectly automatic, and always in control of the man handling it. It can be started at any point in the car without a moment's loss of time, by simply pushing the scoop a few inches toward the door of the car. A single shovel, we are informed, will enable a man to unload a car of 600 bushels in fifteen minutes, while with two shovels a car can be unloaded in five minutes. Every shovel is properly tested before leaving the shop, and the manufacturers assure us that they will guarantee the satisfactory working of this shovel in every instance.

We add here that in order to meet the increasing demand for their specialties, Messrs. Weller Bros. have removed their office and factory from 34 and 36 W. Monroe street to 94 and 96 Wendell street, where, with double their former space and with increased facilities, they are prepared to fill all orders promptly. The "Favorite" Elevator Cup, which is widely known and used in mills and elevators is manufactured by this firm. Another of their specialties is the flexible spout for loading cars, which is advertised on another page. It is specially adapted to places where but little fall can be had. It can be turned in any direction, and will load and trim a car without further assistance. It is made of smooth sheet steel, and

is strong, light and durable. Messrs. Weller Bros will give full particulars of any of their specialties on application.

COUNTRY GRAIN DEALERS.

The country grain dealers of Illinois and Indiana have come to the conclusion that Chicago has had it all her own way about long enough, and they propose hereafter to have a finger in the pie and see if they can put a stop to what they consider unjustifiable meddling with prices. Particularly have they fault to find with the bears, and intend, if they can prevent it, to keep the paws of these destructive animals off their particular hives of honey. About thirty of the prominent dealers met at the Sherman House, Chicago, March 27, and effected a preliminary organization, and elected temporary officers. Two or three men were appointed to travel through Iowa, Wisconsin and Minnesota, and canvass the buyers.

The firms of S. C. Bartlett & Co., Peoria; E. P. Knight, Lafayette; and Piser & Warden, Kankakee, were represented. Last year these three firms alone handled 21,000,000 bushels of grain. Other dealers present were: A. Wolcott, Wolcott, Ind.; H. L. Bushnell and William, Moore, Hoopston; Charles Hartley, Goodland, Ind.; A. G. Hammond, Wyoming, Ill.; S. K. Marston, Onarga, Ill.; O. Barnard, Fowler, Ind.; and E. W. Bowman and E. C. Curtis, Oxford, Ind.

"We represent more actual wheat transactions," said Mr. Moore, "than were made by the Chicago Board of Trade last year. We want to make a bear raid impossible. For instance, last Wednesday corn went down from 54 cents to 49 cents. The receipts were not less than usual. The stocks in the East were light. It was simply a bear raid. The organizers of the raid were confiscating a tenth of the value of our corn. To show that the fall was artificial corn is getting back just as fast as it can to the price from which it dropped. If the bears were selling actual corn we would have nothing to say. They have a right to sell for any price they choose; but those men were dealing in options—trading on wind. If the country dealers in cash grain had stepped in and bought 1,000,000 bushels, the price would have stiffened right up. If a similar state of things occurs next May, we can step into the market and buy as much as necessary, and, in addition, withhold shipments."

LOW PRICE OF GRAIN.

A correspondent of the Bloomington, Ill., *Pantagraph*, says it is a mystery to many who have studied the present grain supply and demand, why it is that with no great surplus, prices remain so low. He gives as a reason the persistent pounding or selling down the market by the bear element in speculation. The short sellers of grain have become so successful in the last few years that they have all the courage and prestige of conquerors, and continue their war on the advancing tendency of prices. This all results in great loss to the farmer, who has the worst of it to bear. As a remedy, the writer suggests that it be made unlawful for any one to sell grain not represented by a certificate of ownership in some warehouse, granary or crib. This is done when railroad stocks or other commodities are sold, and why not in the case of grain? If certificates of ownership had to be produced and handed over with sales, then the country dealer would have some idea when he bought grain of the producer what he could sell it for the next day or week. If this rule were adopted the price would then be regulated by actual supply and demand, and wheat to-day would be considered cheap from first hands at \$1 per bushel. From fifty to one hundred millions of dollars would be saved annually to the tillers of the soil in the Mississippi Valley alone, and with this saving would come general prosperity and "good times." Chicago and Liverpool make the prices for the world's cereals. Liverpool cannot do this without Chicago's aid. The legal remedy is the only one, and the writer urges that the question be agitated and be acted upon by the next legislature of this state. He adds, "the Chicago Board of Trade could regulate the matter if it would, but it is too much to expect of it, for 'by this craft they have their wealth.'"

THE VISIBLE SUPPLY OF WHEAT.

Bradstreet's for April 7 gave the first approximately complete report of stocks of grain and flour out of farmers' hands in the United States and Canada, both coasts, which has ever been made. The totals refer to Saturday, March 31, 1888, and are collected from over 950 points of accumulation. The actual total quantity of wheat out of farmers' hands, stored in warehouses and elevators east of the Rocky Mountains, throughout the United States, amounted March 31 to 59,859,000 bushels, and not to 34,000,000 as given out in official (exchange) reports, a decline of 13,966,000 bushels within thirteen weeks, or about 1,075,000 bushels a week on the average.

Including both coasts, the total of wheat stocks in sight March 31 was 69,472,000 bushels, or about 21,500,000 bushels less than on Jan. 1, 1888. The average decrease a week for three months, both coasts, was about 1,650,000. Since Jan. 1 the stocks of wheat out of farmers' hands, held in Wisconsin, Minnesota and Dakota, have declined less than 2,200,000 bushels, aggregating now over 35,000,000 bushels. At Southern and Middle States points they are practically unchanged from three months ago. At New York state and Pennsylvania cities including New York and Philadelphia, stocks declined 2,300,000 bushels, and at St. Louis, Memphis, Louisville and New Orleans, nearly 2,900,000 bushels. At six Atlantic seaboard cities the total is 6,700,000 bushels less than three months ago. In Manitoba stocks have increased 1,400,000 bushels within three months.

UNPROMISING FOR VESSELMEN.

Vesselmen are not in a particularly happy frame of mind at the opening of the spring season. In the first place the building of so many large boats is slowly but surely taking the trade away from the smaller class of vessels; the Buffalo and Cleveland trade will be given to the line boats, which will give through bills of lading and carry grain at rates the lesser ones cannot touch. Then, too, since the storage charges at this point have been reduced, owners are not so anxious to get their grain out of the elevators, and grain charters for the winter have fallen far below the usual average, while the rate which at the beginning of the winter was 4 cents, dropped last month to 2 cents offered, but which was refused, the vesselmen declaring they would rather keep their vessels at the docks than accept such prices. The quantity of grain to be shipped is also small compared with that of other seasons.

The formation of the Marine Trade Council in this city composed of sailors and longshoremen, is said to be looked upon with suspicion by vesselowners, who are not disposed to stand any dictation from unions. Insurance rates are unsettled, low water is reported all around the lakes, and take it all in all the outlook for marine interests is not of a rosy color. The vesselmen at this port and those at Cleveland have agreed to postpone the starting of their craft until May 1, in the hope that something more favorable will turn up in the meantime.

INDIANA CROPS FOR 1887.

The report of the State Agricultural Department of Indiana shows that the crops as compared with the last five years were as a whole far below an average and in localities almost a failure. The severe drought, which lasted almost the entire season, was disastrous to the farmer and was unparalleled in the history of the state. Notwithstanding this, Indiana, according to the National Department of Agriculture, ranked first among the states in the production of wheat, producing 37,828,000 bushels as against 36,861,000 bushels produced by Illinois—the value of the crop being \$27,236,160. The yield for the year fell short 4,129,663 bushels compared with 1886, while the average number of bushels produced to the acre fell off 15 per cent. The corn crop fell off more than one third as compared with last year's yield, the state producing 103,217,209 bushels in 1886, and only 70,017,604 in 1887, and was not over half of the 1885 crop, while the acreage was much larger than either of the two preceding years, being 10,500 acres more than in 1886, and 23,000 acres more than in 1885. The average

produced per acre was lower than any year for the past five, being only 21.6 bushels, as against 28.4 bushels in 1884—the next lowest average during this time.

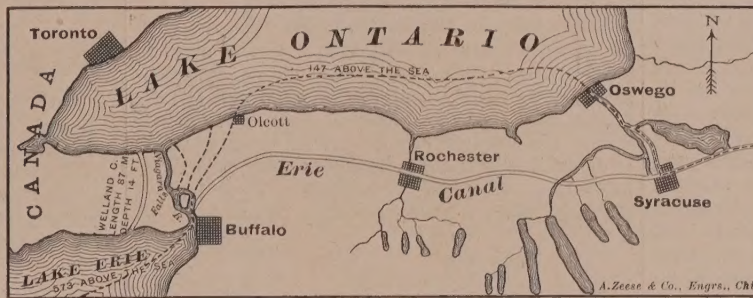
Oats shared in the general falling off, showing the lowest average per acre (27.7) for the past five years, and there was a shortage of 3,951,118 bushels as compared with the previous year. The rye crop was an average yield.

THE NIAGARA SHIP CANAL.

The most important bill pending in Congress in its effects on the vessel interests of the lakes is the one providing for a commission to prepare plans for the Niagara Ship Canal to join Lakes Erie and Ontario over American territory. The commission asked for will consist of two members of the United States Engineering Corps, two civil engineers, and one member of the Chicago Board of Trade.

The Niagara Canal is intended to bring steamers of 3,000 tons and 100,000 bushels capacity, and drawing 19 feet of water, 146 miles nearer New York than they can now come. Six routes, marked by dotted lines in the accompanying map, varying in length from seven to twenty-five miles, have been selected as feasible. They extend from the Niagara River above the falls to the same river below the falls or to Lake Ontario, and have been surveyed by William Pierson Judson. Their estimated cost is from \$11,000,000 to \$19,000,000. The line most in favor is the one ending at Wilson, on Lake Ontario. The connection with all of them with the Erie Canal is through the Oswego Canal at Syracuse.

The estimated saving in freight by the Niagara Canal is three quarters of a cent a bushel on grain, and a cor-



THE NIAGARA SHIP CANAL.

responding reduction will be made on merchandise coming West.

CINCINNATI'S NEW CHAMBER OF COMMERCE.

The new building now being erected on the corner of Fourth and Vine streets, Cincinnati, by the Chamber of Commerce, and which will be completed during the present year, will be one of the finest structures in the country. It is 150 feet long and 100 wide. The angles at the corners are rounded off, and from the second story are carried up in the form of a tower, rising slightly above the roof, and thus giving great dignity to the exterior of the building. The circular bays in the great hall formed by these towers, make cosy little nooks into which men may retire and consult over special matters, thus escaping the bustle and noise of the crowd.

The building is entered from three streets. From the principal entrance on Fourth street, a grand staircase leads up into the main hall and is continued up through the entire height of the building. Three elevators are placed conveniently to the main hall and the offices. The great hall of the Chamber of Commerce is 140 feet long by 68 feet wide, and with its lobby contains 10,340 square feet. It is lighted by eleven windows, 10 feet 6 inches wide, extending from the floor to within ten feet of the ceiling.

In the great hall is the president's stand, three telegraph offices and six telephone boxes. The lobby is 40x18 feet, and is lighted from above by a skylight. The entire building has been constructed with an eye to practical use and convenience, and will be an ornament to the city.

The Union Pacific, Missouri Pacific, Santa Fe, and the Chicago, Kansas & Nebraska Railroad companies have decided to carry seed grain free to the needy farmers in the western counties of Kansas.

TRADE IN THE SOUTHWEST.

KANSAS CITY, April 10.—The threatening strikes during the past month have had an adverse effect on grain and elevator men. There has been no continued confidence in the ability of the different railroads centering here to handle the freight which might come to their doors, and the result has been that countrymen have shipped sparingly to the city, while the city fellows have not sent out all they otherwise would. Of late, however, business has settled down to its usually even tenor and there is more confidence in the railroads than there has been for almost six weeks past. This unsettled state of affairs has been peculiarly unfortunate to the grain men. It must be remembered that for a long time past they have had a hard time of it, and that just when they were expecting a freer movement, outside things should have worked adversely to the anticipated activity, caused the bulk of them to feel rather blue.

The elevators have not done much and would not have had everything worked as usual. None of them are nearly full, and if there is one class of investments which pays a less per cent. than any other it is the elevators. Some small improvements have been made, but so far as can be learned there is no reason to believe that there will be any great outlay on the different plants in the city. It is a fact that all the supplies which come to this city are easily taken care of. There is a good deal of coaxing for consignments just now. Every once in a while it is whispered about that concessions are being made to some of the more favored grain men. In a quiet way many of the elevator men are trying to get their elevators as full as possible, by allowing rebates. Of course this is not done openly, and of course the different proprietors will declare as they hold up their hands in well-feigned horror that they would not do this under any circumstances.

It is all right to say so, but if the hidden history of the past year were spread out for the public to gaze upon, it would create no little astonishment. Of course there are elevators who stick to the letter to the rates which have been generally authorized, but on the other hand there are some who will make cuts with very little compunctions of conscience. This may be all right. It may bring about more business for some of the elevators not so fortunate as their neighbors, but I doubt exceedingly if it tends to relieve the tightness of the money market for some of the leaders in this class of investments. It is

a bad thing to do at any time, and the more so when the country about here can barely support half the elevators found within its boundaries. It is a curious anomaly that in any given pursuit, when the demand for trade is the greatest, people, instead of stiffening their rates, will invariably allow themselves to believe that the legitimate time has come for slashing. And, by the way, this slashing really benefits nobody. The farmer gets no higher prices for his grain, and the consumer has to pay as much as ever for his flour. The elevator men are on the same plane, except that instead of not losing anything, they have to be satisfied with less margins, and consequently for the work they do they are not so well paid as when they have their hands full. It is doubtful if there is an elevator in Kansas City that has more than made expenses the past month. The working forces have been cut down to the lowest possible notch, until there are none kept about the premises who are not actually needed for the limited trade which comes to the front once in a while. There have been plenty of days during the past thirty days when none of the elevators have received any grain, and on the other hand there have been plenty when not a grain has been sent out. Of course the latter status of affairs is rather acceptable to the average elevator man, especially when his receipts are next to nothing. It would certainly be a pity if the shipments could be lively right along when there are no receipts coming to hand. At this rate it would take but a few days to shut down every elevator in the city.

So far as crop prospects are concerned in the state of Kansas, it may be said that they were never better. The acreage in wheat is not up to that of last year, but what was planted is looking very well, and there is no reason to believe otherwise than that the largest number of bushels to the acre will be taken off the fields of Kansas in the history of that state. The rains of the month have filled the soil to such an extent that even if but little rain falls before harvest time it will not materially alter the condi-

tion of crops. Corn has been planted to a limited extent in the southern portions, and before a week is over, it is said, that half the acreage to be placed in Kansas ground will have been planted. Two weeks ago, when the weather continued adverse to the sowing interests, there was some alarm expressed, for fear the corn would not be gotten into the ground in time, but now there is no occasion for it longer. It is believed that the oat crop will be the banner one in the history of Kansas and Nebraska. In the latter state, I am told that very many of the farmers who have heretofore put corn in, are devoting a good portion of their farms to oats. They have found that oats is a staple article, and the crop is fairly certain—much more so than is the case with either wheat or corn.

Another encouraging feature with reference to the probable yield of the Southwest for this year is the fact that there are many immigrants pouring into this country from all portions of the East. This is all the more remarkable as last year tales of woe and trouble went to the East from this country. There is no state in the United States which apparently recovers itself so quickly from the effects of an off year as Kansas. It seems that a bad year there serves to bring in more new settlers than ever. At present these are tending mostly to the southern portions. It seems to be the general aim to get as near the Indian Territory line as possible. The hope that the government will open up that forbidden land to settlement is what is tempting them. About this Indian Territory opening there is a good deal of imagination employed. The story goes out that it is a land flowing with milk and honey. It is really no better than Kansas, and many sections are utterly uninhabitable to the husbandman. I have been down there many a time, and if the soil is that rich as many parties boast of, I have not been able to see the proofs. There are plenty of civilized Indians down there, and they employ the most improved methods of farming, yet their crops are not up to the average in the adjoining state. One enterprising fellow started an elevator down there, but there was not enough grain raised about his section to hardly pay for the expense. I understand there are along the lines going through the territory three elevators in all, none of which are doing very well. Things may be entirely different as soon as the country is opened up for settlement of the white men, but I fancy there will be a good many parties who go down there in a hopeful mood who will be glad to count the ties as they trot back to the pales of civilization again. True it is that the pleasures of hope are far more preferable than the realization of the same.

I hear that some American capitalists are making arrangements for the erection of elevators at Piedras Negras and El Paso, Old Mexico. The idea is to have large structures at those points which shall always be kept well supplied with wheat, to supply all demands throughout that country. It is further proposed at no distant day to erect flour mills at those points also. There are very few first-class flour mills in Old Mexico, and it is thought that a profitable field will there be opened up and will constantly grow better as the goods become better known. It is thought that very important concessions can be gotten from the government, and that the new departure of capital will be amply protected. This new scheme will be studied with a good deal of interest.

The exposition for this city the coming fall is an assured fact, and there has been in the neighborhood of \$100,000 subscribed toward the project by the merchants of the city. All the different elevator and flour mill builders would do well to come to the front early and secure the space best adapted for a good display of their machinery. It must be remembered that millers from all over the Southwest come to this city at the time of the exposition, and those parties who make displays at this time will have no reason to regret the slight outlay of time and money.

The elevators of the city at present contain 181,320 bushels of wheat, 103,390 bushels of corn, and 91,647 bushels of oats. This is much less than they held last year at this time, and altogether is not equal to the capacity of one elevator. There is little change in this condition of affairs expected until the new wheat crop comes to the front. Values of grain have not fluctuated to any great extent the past month. As a rule the market has been sluggish right along.

It is thought that the new Board of Trade will be completed by September, and with larger and pleasanter quarters commission men will take heart and work the business for all there is in it. As it is now, the daily Board is carried on in a listless, dull manner.



[We invite correspondence from every one in any way interested in the grain trade, on all topics connected therewith. We wish to see a general exchange of opinion on all subjects which pertain to the interests of the trade at large, or any branch of it.]

NO DOUBT OF IT.

Editor American Elevator and Grain Trade:—Inclosed please find \$1, for which send me the AMERICAN ELEVATOR AND GRAIN TRADE for one year. Send the April number, as I am about erecting a small elevator, and can no doubt get some useful information from the paper in relation to construction, etc.

Yours truly,
ALEX. PARKS, JR.
Martinsburg, W. Va.

MEASUREMENT FOR GRAIN IN BINS.

Editor American Elevator and Grain Trade:—A correspondent, "B," asks for a rule for measurement of grain in bins. Find the contents of the bin in cubic feet, and diminish the contents by one-fifth; the result will be the capacity in bushels.

I do not of course assume this to be exactly correct, but only approximately so, and will do very well for practical purposes.

Yours truly,
B.
Duluth, Minn.

NORTHWESTERN NEWS.

Editor American Elevator and Grain Trade:—A number of new elevators are being built at various points in the Northwest. John Ramsted will build a grain elevator at Ada, Minn.; another will shortly be erected at Lake Preston, Dak., and also at Redwood Falls. The Northwestern Elevator Company are putting in a new design of dump irons at Hatton, and also at Ada, Minn., furnished by G. W. Crane, Minneapolis. D. H. Bultz of Bultzville, Dak., is placing a Dickey Cleaner in his elevator.

Yours truly,
XX.

POOR PROSPECTS FOR GRAIN.

Editor American Elevator and Grain Trade:—Inclosed please find \$1 for the AMERICAN ELEVATOR AND GRAIN TRADE. I don't know how I could get along without it. I look eagerly for it every month, as there is so much information in it.

The wheat in this part of the country looks bad, and there is a very poor prospect for a crop, especially of the late sown grain. If at any time I can give you any information let me know, and I will be pleased to do so.

Yours respectfully,
E. FLETCHER.
Bunker Hill, Ind.

A COMPLETE ELEVATOR.

Editor American Elevator and Grain Trade:—Please send me the April number of your journal. I had thought to have been in Chicago a week ago, but have some work to do on the malt house, which will take me some time yet.

I have just completed an elevator for the Eberhardt & Ober Brewing Company, and for the size of it, 150,000 bushels, it is as fine a house as there is in America! It was designed by Messrs. Baumann & Lotz of Chicago, and there has been no lack of material or labor to make it as complete an elevator as there is in the country.

Yours truly,
GEO. M. FILSTEAD.
Alleghany, Pa.

ELEVATOR POOLS AND THE CANAL BOATMEN.

Editor American Elevator and Grain Trade:—I received the March number of your highly interesting journal, but was somewhat vexed to find that the malicious and false statement had gotten into it that I was forced to admit the injustice of the elevator bill introduced by Senator Low and Assemblyman McEvoy, which limits the charge for elevating grain at the ports of New York and Buffalo to $\frac{1}{4}$ of 1 cent per bushel, to be paid by the grain, vessels and canalboats to pay the actual cost of trimming grain only.

In the first place, I have not made a mistake since I

came here from Chicago, in the fall of 1876, to introduce the Illinois Steamer and Consort system, of making one sectional boat of two of their present boats, thereby doubling the capacity of the boat without increasing the running expenses. When I first came to Buffalo I told the people that by adopting this double boat system, and giving the boatmen a square show in terminal charges, the Erie Canal was capable of bankrupting every railroad line competing against it. There are now nearly one hundred steam canalboats in operation, which push or tow from one to three consorts, and there are a number of improved steamers being built this winter which will be ready by the opening of canal navigation.

So you see that I have been successful in getting the steamer and consort system adopted. But I have failed to get the practical elevator pools and combinations to give the boatmen justice, although I have prosecuted them ever since I came here. No doubt you have noticed by the papers that it is very probable that the present legislature will reduce their charges to the very lowest minimum. I inclose several statements which have been published recently as to elevator charges; after reading them you will readily see that what some people call my elevator bill, is a reasonable one.

I noticed in your journal that arrangements have been made at Buffalo to transfer railroad grain for $\frac{1}{4}$ of a cent per bushel, but they want to continue to collect $1\frac{1}{2}$ cents (outside of trimmers' charges) on grain shipped by the lakes and Erie Canal. To give you an idea of what the people of the state of New York and the Erie boatmen have done to retain the grain carrying trade against competing transportation routes to leading seaports north and south of the port of New York, I will state that the people used to collect a toll of two cents per mile on light boats, and 6 2 10 cents per bushel on wheat through the Erie Canal.

EXHIBIT.

Tolls on one cargo of 8,000 bushels.....	\$496.00
Tolls on boat 345 miles.....	6.90

Total receipts.....	\$502.90
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Now the canals are absolutely free to boats and grain.

The boatmen used to get as high as 25 to 30 cents per bushel for freighting grain, and even as high as 50 cents has been paid on some cargoes; but 15 cents used to be called ruinously low freight. However, I will make 15 cents the high freight basis in my exhibit.

EXHIBIT.

One cargo of 8,000 bushels at 15 cents per bushel....	\$1,200.00
Now the average rate is permanently reduced to 4 cents per bushel.....	320.00

Reduced by boatman.....	\$ 880.00
Total reduction by the people and the boatmen on only one canalboat load of 8,000 bushels.....	\$1,382.00

Now we have reliable and uncontrovertible evidence, showing that while the people and the boatmen have made this great sacrifice, the elevator pools and combinations have advanced the charges for transferring one boatload of 8,000 bushels of grain, \$174, \$108 in New York and \$66 in Buffalo. It may seem incredible to some of the readers of your journal that the Erie boatmen have managed to reduce canal freights 11 cents a bushel and then delivered 47,000,000 bushels of grain in New York, as they did last season. By the steamer and consort system, instead of paying 35 cents a mile to tow one boat by the towing lines with horses, that were used years ago, they now move four boats by steam for 20 cents a mile, or five cents per mile per boat. Besides, the crew's expenses are reduced nearly one-half by the double boat system. Another thing, boatmen are more economical than they used to be when the Erie Canal was king of the situation.

In conclusion I will venture the prediction that after the proposed improvements to the Erie Canal are completed, and the boatmen are given an equal show with the railroads in elevator and wharfage charges, "Clinton's Ditch" will continue to be a source of great revenue to the people of the state of New York, and also an inestimable benefit to the farmers in the Northwest.

Yours truly
M. DE PUY.
New York City.

Prof. Henry of the Wisconsin Experiment Station, observes that while the machines invented for the planting and cultivation of corn are marvels of ingenuity, very little progress has been made in improved methods of handling the matured crop. Corn is husked, cribbed, shelled and ground, and even the meal cooked very much as it was in the days of our forefathers.

**Issued on March 13, 1888.**

AUTOMATIC GRAIN MEASURE.—Harry M. Cowan, Gros, Dak. (No model.) No. 379,209. Serial No. 238,011. Filed May 12, 1887.

GRAIN MEASURING MACHINE.—Jesse M. Lamb, Franklin, Ind. (No model.) No. 379,231. Serial No. 245,503. Filed July 28, 1887.

GRAIN WEIGHING, BAGGING AND TALLYING MACHINE.—Frederick R. Graetz, Rochester, Minn. (No model.) No. 379,273. Serial No. 234,662. Filed April 13, 1887.

GRAIN WEIGHING AND REGISTERING APPARATUS.—James Pepper, Star City, Ind. (No model.) No. 379,325. Serial No. 256,498. Filed Nov. 30, 1887.

BALING PRESS.—William S. Reeder, St. Louis, Mo. (No model.) No. 379,414. Serial No. 227,825. Filed Feb. 16, 1887.

FEED GRINDING MILL.—Henry W. Vietmeyer, Freeport, Ill., assignor of one-half to The Union Foundry, Mansfield, Ohio. (No model.) No. 379,549. Serial No. 221,446. Filed Dec. 13, 1886.

Issued on March 20, 1888.

CYLINDER FOR CORN SHELLERS.—Henry Poucher, Brooklyn, Mich. (No model.) No. 379,603. Serial No. 245,254. Filed July 25, 1887.

BALING PRESS.—James D. Houghton and William J. Alexander, Monroe county (near Egypt, Chickasaw county), Miss. (No model.) No. 379,645. Serial No. 257,239. Filed Dec. 7, 1887.

GRAIN METER.—Jacob O. Marks, Urbana, Ill. (No model.) No. 379,799. Serial No. 259,948. Filed Jan. 6, 1888.

BAG HOLDER.—Allison M. Roscoe and George E. Grier, Dubois, Pa. (No model.) No. 379,817. Serial No. 243,257. Filed July 2, 1887.

GRINDING MILL.—George H. McCulloch, Lena, Ill., assignor of one-half to John McCulloch, same place. (No model.) No. 379,900. Serial No. 239,629. Filed May 28, 1887.

Issued on March 27, 1888.

AUTOMATIC GRAIN SCALE.—Charles J. Hartley, Decatur, Ill. (No model.) No. 379,954. Serial No. 250,559. Filed Sept. 24, 1887.

BELT SHIFTER.—Unico H. W. Schenck, Brooklyn, assignor of four-tenths to Charles A. Willis, New York, N. Y. (No model.) No. 379,988. Serial No. 231,448. Filed March 18, 1887.

BELT TIGHTENER.—Dock Bowman, Cynthiana, Ky. (No model.) No. 380,081. Serial No. 244,307. Filed July 14, 1887.

BELT FASTENER.—Timothy Gingras, Buffalo, N. Y. (No model.) No. 380,104. Serial No. 205,975. Filed June 23, 1886.

BELT FASTENER.—Timothy Gingras, Buffalo, N. Y. (No model.) No. 380,105. Serial No. 205,976. Filed June 23, 1886.

FEED MILL.—Thomas C. Cadwgan, Springfield, Ohio, assignor, by direct and mesne assignments, to the Springfield Engine and Thresher Company, same place. (No model.) No. 380,180. Serial No. 212,125. Filed Aug. 28, 1886.

CAR STARTER.—Henry H. Holmes, Jersey City, N. J. (No model.) No. 380,260. Serial No. 256,986. Filed Dec. 5, 1887.

Issued on April 3, 1888.

FRICTION CLUTCH.—John A. Keller, Hamilton, assignor to the Falls River Company, Cuyahoga Falls, Ohio. (No model.) No. 380,326. Serial No. 258,292. Filed Dec. 19, 1887.

FRICTION CLUTCH.—Hilen C. Crowell, Erie, Pa. (No model.) No. 380,384. Serial No. 246,542. Filed Aug. 9, 1887.

CORN SHELLER.—Ephraim Herrington, Mount Vernon, assignor of one-half to M. M. Bush, Towns, Ga. (No model.) No. 380,389. Serial No. 249,699. Filed Sept. 14, 1887.

BALING PRESS.—Roger W. Archer, Beeville, Texas,

assignor of one-third to Calvin F. Rudolph, same place. (No model.) No. 380,472. Serial No. 249,637. Filed Sept. 14, 1887.

Issued on April 10, 1888.

AUTOMATIC WEIGHING AND RECORDING SCALE.—Edward H. Amet, Chicago, Ill., assignor to Herbert A. Streeter, same place. (No model.) No. 380,672. Serial No. 248,779. Filed Sept. 5, 1887.

CAR STARTER AND BRAKE.—John Heimlich, Oak Harbor, Ohio, assignor of one-half to Emery Thierwechter, same place. (No model.) No. 380,681. Serial No. 256,276. Filed Nov. 28, 1887.

BELT COUPLING.—Nicolaus Ourin, Kirchberg on the Wechsel, Lower Austria, Austria-Hungary. (No model.) No. 380,695. Serial No. 259,900. Filed June 12, 1886. Renewed Dec. 31, 1887.

AUTOMATIC GRAIN MEASURING MACHINE.—Abram J. Grissom, Whitewright, Texas (No model.) No. 380,718. Serial No. 255,523. Filed Nov. 18, 1887.

CORN SHELLER.—Samuel G. Pillsbury, Long Island, Kan., assignor of one-half to Alice V. Whitcomb, same place. (No model.) No. 380,767. Serial No. 248,293. Filed Aug. 30, 1887.

CYLINDER FOR COTTON-SEED HULLING MACHINE.—Abel D. Catlin, Bay City, Mich. (No model.) No. 380,787. Serial No. 234,929. Filed April 15, 1887.

BAG HOLDER.—Frank G. Fischer, Harrold, Dak. (No model.) No. 380,794. Serial No. 242,447. Filed June 25, 1887.

BALING PRESS.—Andreas Mattijetz, Giddings, Tex. (No model.) No. 380,810. Serial No. 256,397. Filed Nov. 29, 1887.

EAST DUBUQUE'S NEW GRAIN ELEVATOR.

The new elevator at East Dubuque, Ill., which was commenced last summer, is now completed and in working order. It was built by the Illinois Central Railroad Company, to be operated by The E. M. Dickey Co., who will use it for transferring grain from barges to cars on the railroad. The building is 72 feet square and 135 feet high, with a cupola. The foundation of masonry is very strong and massive, large blocks of the best quality of stone having been used, while the upper portions of the building have been constructed throughout of selected material, with special reference to strength and their intended use. The engine house is 36x48, and contains a 170-horse power engine and two boilers each 54 inches in diameter and 16 feet long, the whole plant resting on a bed 18x36 feet in size. The chimney of the engine house tapers from a base ten feet square.

The elevator is thoroughly equipped with machinery of the latest improved type for handling grain. There are fifty-five bins having an aggregate storage capacity of 200,000 bushels, and 4,000 bushels of grain per hour can be elevated from barges, or fifty carloads can be handled and cleared in a day. The elevator was built by J. T. Moulton & Son of Chicago, and the entire structure cost \$75,000.

THE GRAIN TRADE OF BUFFALO.

The great advantages of Buffalo as a grain market, situated as it is at the head of the Erie Canal and being the terminus of many important railroads, would lead one naturally to expect a good showing in that line of business, yet it is doubtful if any one not directly interested in the grain trade has any idea how great has been the growth and how immense the proportions of this industry have become. The annual report of the Buffalo Merchants Exchange, recently issued, gives some statistics which may prove interesting to the general reader. The first records of the business date back to 1836, at which time the receipts of flour were 139,178 barrels, of wheat 304,090 bushels, and corn 204,355. For 1887 the imports of wheat aggregated 48,111,180 bushels, against 41,430,440 bushels the year before, and 27,130,400 bushels two years ago. Over 4,000,000 barrels of flour were received, and the total receipts of flour and grain reached the enormous quantity of 104,737,710 bushels, while two years ago the aggregate was only 64,329,355 bushels. The total elevator storage capacity for grain is 13,080,000 bushels. The grain trade is the largest industry of the city, although several others are carried on extensively. The total amount of grain and flaxseed handled by the Western Elevator Co. in 1887 was 85,015,057 bushels.



L. F. Pardue, Geneva, Neb., writes us that elevator prospects for the coming season are very good.

Weller Bros., 94 Wendell street, Chicago, delivered to the Santa Fe elevator in this city last month, nearly 1,000 20x6 Magee Elevator Buckets with bolts and sole leather washers for the same.

The E. H. Pease Manufacturing Company of Racine, Wis., manufacturers and furnishers of grain elevator machinery and supplies, and also of grain cleaners of various kinds, report business in their line as booming for so early in the season. They deserve it, as they furnish fine outfits.

The Roller Chain Belting Company of Columbus, Ohio, have purchased a three-acre tract of land upon which they will at once erect a new plant. Their business has increased to such an extent that their present works are inadequate to supply the demand for their machinery.

The Harrington & King Perforating Company of Chicago, manufacturers of perforated sheet metals for milling and mining machinery, etc., are filling orders from all parts of the United States. They are running their factory to its full capacity, and report a bright outlook for business.

The Babcock & Wilcox Company of New York, from Jan. 1 to March 5, placed orders for between 6,000 and 7,000 horse power of water tube boilers. Many of the boilers included in these orders went to foreign countries, some of them being the fourteenth and fifteenth orders from the same house.

Messrs. Weller Bros. of this city, manufacturers of the "Favorite" Elevator Cup, Dyblie Automatic Power Grain Shovel and other specialties for the milling and grain trades have found it necessary, through the growth of their trade, to remove their establishment from 34 and 36 West Monroe street to larger quarters at 94 and 96 Wendell street, where, with largely increased facilities, they are prepared to fill orders promptly.

The suit of the Babcock & Wilcox Company of New York, against the Pioneer Iron Works, for infringement of their patent in building the Zell Boilers, has been decided in their favor by Judge Wheeler of the United States Circuit Court for the District of New York, and the latter company has paid \$6,500 in settlement for the infringement. A similar suit against the makers of the Moore Boiler is now pending in the United States Circuit Court for the District of New Jersey.

Messrs. Knisely & Miller Bros., slate, tin and iron roofers, Nos. 129 and 131 South Clinton street, Chicago, report that they have completed machinery for making all sizes of round and square corrugated pipes, of which they now carry in stock large quantities. They are also at work, and have nearly completed machinery for making skylight bars much more cheaply than they have been able to make them in the past. They also have new machinery for making speaking tubes.

Borden, Selleck & Co., Nos. 48 and 50 Lake street, Chicago, report trade in good shape. Among some of their recent sales are a Harrison conveyor plant for the Hadfield Company, coal operators and dealers of Milwaukee, who had a plant in constant use five years, and are now adding another one. The South Side cable road at Twenty-first and State streets, have put in a system of Harrison conveyors to feed the coal to their boilers. Coal after leaving the wagons is not handled again, being fed automatically into the furnaces. A large Harrison conveyor plant was sent to Jacob Elitz, a large operator and coal dealer of New York. They are also filling recent contracts for Howe Scales as follows: Chicago & Northwestern R. R. Co., 80,000 pounds R. R. scales at Lincoln, Nebraska; Oakdale hopper and wagon scales for Fowler & Gants, Omaha, Neb.; R. R. track scale for Monarch Distilling Company, Peoria, Ill.; eight-ton wagon scale for Scheibel & Britten, Chicago; ten-ton to Neff & Stevens, Silver City, N. M.; ten-ton to City of Ripon, Wis.; ten-ton to South Side cable road at engine house, Twenty-first and State streets, Chicago; two 100,000-pound R. R. scales for W. W. Cargill & Bros., La Crosse Wis.; large hopper scales for Schneider Bros., Springfield,

O.; ten ton wagon scale for Joliet Stone Co., Chicago; do., for the Penitentiary, Joliet; same to Illinois Iron and Bolt Co., Carpentersville, Ill.; also a miner's scale to same firm; a ten-ton wagon scale to the city of Evansville, Ind.; 100,000 pound R. R. track scales to Findlay Iron and Steel Company, Findlay, O.; 80,000-pound R. R. track scale to Black Diamond Coal Co., Los Angeles, Cal.

ELEVATOR CHARGES AT NEW YORK AND BUFFALO.

A correspondent of the Albany *Evening Journal* in speaking of the efforts of some of the Albany people to have the canal appropriation bill passed, says they have not mentioned the flagrant abuses to canal commerce at the ports of New York and Buffalo. They have also ignored the fact that the boatmen have publicly declared many times that a reduction of elevator and wharfage charges would aid them far more than the proposed canal improvements would. The writer goes on to say:

"Recently a former boss grain scooper was in New York and stated that the receipts of the steam shovel and for blowing grain would pay for a tower elevator every year, and figures show that the gentleman knew what he was talking about. To make the matter clear to the reader, we will first give the pool rates for a direct transfer of grain:

BUFFALO CHARGES PER 1,000 BUSHELS.

Grain pays $\frac{3}{4}$ cents per bushel.....	\$7.50
Vessel pays $\frac{1}{4}$ cent per bushel for elevating.....	1.25
Vessel to steam shovel at $\frac{1}{4}$ of 1 cent a bushel.....	2.50
Vessel to grain scoopers 2-10ths cents per bushel.....	2.00
Canalboat to grain scoopers $\frac{1}{4}$ cent a bushel.....	1.25

Total per 1,000 bushels.....\$14.50

Now the idea is to give commerce the benefit of the first two items, $\frac{3}{4}$ cents a bushel.

A tower elevator costing \$20,000 and transferring only 50,000 bushels per day (half capacity) would have the following receipts per day:

For steam shovel $\frac{1}{4}$ cent a bushel.....	\$125.00
For blowing on an average half the grain transferred at $\frac{1}{4}$ cent.....	31.25

Total receipts per day.....\$156.25

EXPENSES FOR FUEL AND LABOR.

One superintendent.....	\$ 3.00
One engineer.....	3.00
One weighmaster.....	2.50
One wheelwright.....	3.00
One leg tender.....	2.00
One spout tender.....	2.00
One night watchman.....	2.00
One fireman.....	1.50
One sweeper.....	1.50
Four tons soft coal, \$2.60.....	10.40
Sundries.....	5.00

Total for labor and fuel per day.....	\$ 35.90
Profit per day.....	120.35

For 182 working days during canal navigation.....\$21,913.70

DEDUCTIONS.

Interest on capital invested at 5 per cent.....	\$1,000.00
Insurance 2 per cent.....	400.00

Total deductions.....	\$1,400.00
Clean profit on investment over interest, insurance and all other expenses per year.....	\$20,513.70

New York charges are \$3.50 per 1,000 bushels more than they are in Buffalo."

Apropos of this communication, another writer to the same journal makes the following statement:

"The statement of the Buffalo boss grain scooper, published in *The Journal* March 23, shows conclusively that elevator charges at the Queen City of the lakes can be reduced seven eighths of one cent a bushel, which equals seventy dollars on one boatload of 8,000 bushels grain, and then leave the elevator owner over 100 per cent. per annum on the capital invested and not interfere with the grain scooper's present charges. Now a prominent grain weighmaster of Brooklyn comes out and says that one-quarter of one cent a bushel for elevating, and the usual charges of one-fourth of one cent for blowing grain would allow a floating elevator to more than pay the first cost of construction every year in the port of New York. This gentleman says that a good floater can transfer four boatloads of 8,000 bushels each in a day very easily, which would make her gross receipts \$160, and her expenses would not exceed \$35 to \$40, leaving a net profit \$120 per day, about \$25,000 for a season's work. But when we consider that the present combination rates in the port of New York are 1 2-10 cents a bushel (\$96 on one boatload) more than the liberal rate suggested by an old weighmaster, who is familiar with the whole routine of transferring grain, gives one some idea of the magni-

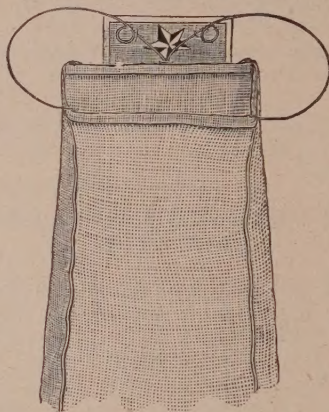
tude of the steal on canal commerce at the eastern terminal of the Erie Canal. Then, to know that the combined extortion at both ends of the canal amounts to \$166 on one boatload of grain, it proves the oft-made assertion by the boatmen that a reduction of terminal charges should precede canal improvements; and I know that it is the unanimous opinion of the farmers in this vicinity that the legislative sickle ought to be applied to the monopolies which are now reaping all the benefit of our free canal system."

THE STAR PATENT BAG HOLDER.

The Star Bag Holder, herewith illustrated, is claimed to be practically perfect. It is made of steel spring wire



and can be placed in an instant on a bin, post, truck, or on the wall, by a device on the back of the holder not shown in the cut. It will hold torn and hemless bags as



well as new ones, and does not tear the bag. Among other things claimed for it is that it will help to shake down feed in the bag. This is claimed to be the best and cheapest bag holder offered to the trade. It has been on the market for some time, and users have spoken in the highest terms of its efficiency. The price is only \$1.00, and the manufacturers want a few good agents. It is made by the H. J. DEAL SPECIALTY COMPANY of Bucyrus, Ohio, who will give all necessary information.

GRAIN-CUTTING MACHINERY.

An extended article on the above subject, by B. F. Spalding, in the *Industrial World*, reviews the great improvements in this class of machinery, most of which have been made during the present century. The writer, however, is of the opinion that still greater inventions and improvements will yet be known in the future. Traction engines which have hitherto proved too clumsy and heavy to be of much practical service, will he thinks be so remodeled or combined with threshing machines, that out of the union may be evolved a machine that will cut, thresh and sack the grain by steam power with once going over. As it is, he says, the wheat fields are yearly becoming smoother, rendering them more easily reaped by the machines now in use, and it will not be surprising if before another season rolls around some machines shall be produced which will carry engines and boilers for the necessary steam power to operate the grain-cutting and delivering machinery, while all useless weight in driving traction wheels is cut off. It is thought that machines can be made which can be easily drawn by two horses, which will do twice the work that is now done by three, the advantage being gained by cutting a wider swath and moving at greater speed.

South Australian advices of February 11 report wheat harvesting completed, with favorable weather. Reports collated by the South Australian *Advertiser* show the yield to be 10 bushels to the acre on about 2,000,000 acres, indicating a crop of about 20,000,000 bushels, which will give a surplus of 16,000,000 to 17,000,000 bushels. The low prices ruling made farmers unwilling to sell, but large quantities were nevertheless being disposed of, and considerable shipments were being made.

THE "CORNER RULE."

The Chicago Grain Receivers' Association held a lively meeting on March 29. President George M. How occupied the chair, and a dozen or more of the large firms were represented. The meeting was called to discuss the advisability of the repeal of Sec. 10, Rule 4, of the Board of Trade. This is the famous "corner rule," and provides that any member proven guilty of manipulating market values as a basis for extorting unreasonable and unjust damages or for the purpose of avoiding payment of just obligations shall be expelled from the Board. The particular rule is as follows:

RULE IV. SEC. 10. If, during the progress of any arbitration or other investigation before any committee of the association, it shall appear to the satisfaction of such committee that any member of the association has been guilty of manipulating market values, as a basis for extorting unreasonable and unjust damages, or for the purpose of avoiding payment of just obligations, the said committee shall thereupon make formal charges to that effect, against the member thus implicated, to the board of directors. The member thus charged shall be promptly summoned to appear before the board of directors for an investigation of the charge; and if the charges are successfully prosecuted by the committee, and the member is found guilty, he shall be expelled from the association, if so determined by an affirmative vote of at least twelve members of the board of directors.

Mr. Rumsey offered the following resolution:

Resolved, That it is the sense of this meeting that Section 10, Rule IV be repealed. Mr. Adams said the rule was simply a protection for short sellers and directly against the interests of the buyers. When the rule was originally framed it may have been necessary, from the circumstances which then surrounded the business, but to-day it was evident that it was a wrong to one side and a benefit to the other, which was in direct violation of equity and freedom of commerce. Therefore he would advocate the repeal of the rule.

Mr. Rumsey said the moral effects would be great, as it had come to be believed, by the existence of this very section of the rule, that all buyers were highway robbers. On the other hand the short sellers were the actual robbers, nay more, they were wreckers for they were selling short. The idea had at one time prevailed that supply and demand governed the prices of the commodities in this market, but this was a fallacy to-day. The heavy-weights stood around the pit and watched the light-weights fill up, and when they were loaded up, then these heavy-weights would jump in and throw large blocks of grain into the market, depressing it fearfully. Whatever depressed the futures was, of course, depressing to cash property. The short seller was an injury to the commerce of the nation, and the rule protecting him should be repealed.

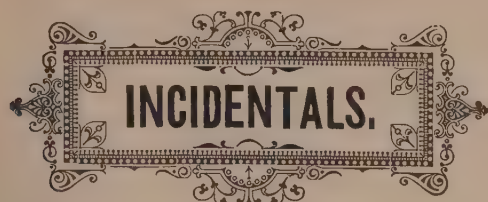
Mr. Pope spoke at some length in favor of the repeal. He said the section had been framed as a warning to capitalists not to run a corner. He was opposed to a word in the rules that would hamper the utmost freedom of trade. The buyer should have whatever profit he could honestly get without being disciplined. All the rules seemed to be in favor of the seller, and the tendency seemed to be to depress prices. Chicago was quoted everywhere as the governing power of prices, and he had heard in Eastern cities that this city was the paradise of the bear. This rule was considered a bar to the buyers coming here to do business. In conclusion he said: "Do not deny to the buyer the same freedom you give to the seller. Let your market be open to the world to buy and sell as they believe they should."

Mr. Hayde thought what was sauce for the goose was sauce for the gander. The rule was discriminating in its effect. The "longs" should have just as much freedom as the "shorts," whereas now the shorts were having it all their own way, and were protected in their raids upon the market. The rule should be repealed without delay to avert disaster.

Mr. Rogers said the resolution was well enough so far as it went, but in his opinion it should be amended so as to fix the date, say the middle of May or June, in order to permit the fulfillment of existing contracts made under the rule. He then offered as an amendment that the repeal take effect on and after June 1.

The resolution as amended was then adopted unanimously.

A bill has been passed in the Ohio legislature providing for the suppression of bucket shops.



A farmer in Penobscot county, Me., figures the cost of raising wheat in his section at less than 40 cents a bushel.

It is predicted that the shipments of merchandise and flour from Duluth for 1888, will be about 50 per cent. larger than in 1887.

Forty grain dealers and millers met at Grand Rapids, Mich., recently and effected an organization "to protect their mutual interests."

It is stated that in thirty counties in Illinois the winter wheat crop will fall off about 30 per cent., and that in eighteen counties in Missouri the reduction will be 20 per cent.

The total area of wheat land in Kansas is 1,315,828 acres, an excess of 1,729 acres over the acreage of last year. A larger area of corn than ever before will be grown this year.

The exports of wheat from San Francisco by sea from July 1, 1887, to April 4, 1888, were 7,826,150 centals, as against 10,239,573 centals for the corresponding period of the previous year.

The Bohemian Oats Bill in the Iowa legislature was amended so as to change the bill from the Ohio to the Michigan law, and passed. The law will land the swindlers in the penitentiary if they attempt to operate in the state.

The bucket-shop bill pending in the Ontario House of Commons will probably pass with very little opposition, the only objection raised to it being that its scope is too wide and that it may interfere with legitimate operations.

The binder twine combination which has been in existence in Canada for some time, has been broken by the withdrawal from it of R. W. Morris & Bro. of Montreal, Quebec, the largest manufacturers of binder twine in Canada.

The crop of barley in 1887 was about 6,000,000 bushels less than the year before. The entire crop was 54,000,000 bushels. One-fourth of this is produced in California and New York. Iowa and Wisconsin produce another fourth of the crop.

In regard to the sale of jute bags made at the San Quentin (Cal.) Prison, Governor Waterman says that 2 cents below the market rates would be about the price at which farmers should be supplied with the grain sacks made by the convicts.

Farmers who hold grain, etc., for a higher market should take the important item of shrinkage into account. Repeated tests have shown that 100 bushels of corn in the ear as it comes to the crib in November, will shrink about one-fifth if kept until March.

At Mount Pleasant, Pa., a farmer sold a load of oats to a business firm. A \$20-bill was found in one of the bags with the grain. The purchasers claim that the money belongs to them, and the farmer maintains that it is his. It will probably take a lawsuit to decide.

The *Journal* of Indianapolis, Ind., says that the poor crops in Indiana, Ohio and Illinois are benefiting the railroads in one way. Farmers are cutting cross-ties, and the roads are enabled to get them nearer home than for some years, and at a saving of from 2 to 3 cents apiece.

It is stated that the Northern Pacific Elevator Company pays the largest dividends of any stock company in Dakota. G. S. Barnes of Fargo, Dak., owns \$150,000 of stock in this company, and his dividends last year amounted to \$60,000. So says a Dakota paper, at least.

A circular recently issued by Herklotz, Corn & Co., New York, says: "We think the situation of corn this year is somewhat like that of 1884, when the stock March 1 was 512,000,000 bushels. That year May sold at 57½¢. With good prospects for a new crop, September sold at 51½¢, October at 41¢, November at 35½¢, and December at 34½¢. It is true the market was cornered in September, 1884, and prices run up on shorts to \$1, but times have changed since, and we fear no corner. First,

because the bull speculation has been too much whipped for years, and, secondly, because we think the greater part of the short interest is already covered."

Astronomers have discovered that there are a number of canals in the planet Mars, some of them being nearly 2,000 miles long. It is fair to presume that the government up there is enough like ours to know what an appropriation and a river and harbor bill is.—*Chicago News*.

The Grain Commission Company of St. Louis, Mo., have received reports from correspondents in Illinois and Missouri, indicating that in thirty-one counties of the former state the winter wheat will fall short 30 per cent. from last year, and in eighteen counties of Missouri 20 per cent.

The *Mark Lane Express* states on the authority of a leading London grain merchant, that the through freight recently paid on wheat from Manitoba to London, or St. Polycarp to London, including the "advance charges" paid on it from Manitoba points to St. Polycarp, was 43½ cents per bushel.

The Mark W. Johnson Seed Company of Atlanta, Ga., recently sold 200 bushels of cotton seed to the Czar of Russia. This seed is to be used in the promotion of the cotton growing industry of Russia's Asiatic provinces, so the Southern papers say; but can it be that the Czar is secretly going into the lard business?

Sutherland & Dewey, grain dealers of Cincinnati, have taken out an attachment against William H. Baker, an Indianapolis grain merchant, whom they allege owes them \$2,455 and is about to leave the state without paying his creditors. So far they have not succeeded in finding much of the assets said to belong to their debtor.

J. A. Sanford, a clerk in the Iowa legislature, who was detected in the act of purloining the Bohemian oat bill, with the intent to defeat that measure after its passage, has been discharged in disgrace. He confessed that he was hired to do the job for the sum of \$350, by a Winter-set lawyer connected with the Bohemian Oat Company.

The change in agricultural methods in the South is shown in the fact that last season's corn crop was of nearly the same value as the cotton produced, the two standing—cotton, \$264,852,000; corn, \$213,662,920. Adding the oats, wheat, etc., it is probable that the cereals raised in 1887 equaled, if they did not exceed, in value, "King Cotton."

Although the courts held that the syndicate owning the wheat in the burned St. Anthony elevator at Minneapolis, Minn., were not in any way responsible for the accident which occurred there at the time of the fire last summer, they have placed \$1,000 in the hands of the Swedish Consul in St. Paul to pay to the mother of C. P. Anderson, who was one of the victims.

There is a prospect that the binding twine monopoly will come to grief through other means than farm organizations. It is claimed that Wood, the reaper man, has invented a machine for binding grain with straw bands, which does the work equal to the old ten dollar-a-day binder. If trial proves this to be true, it will result in a saving of at least \$9,000,000 to the grain raising farmer, which is now annually spent for twine.—*Peoria Transcript*.

Prof. J. W. Sanborn, secretary of the State Board of Agriculture, reports the Missouri wheat crop as follows: "Wheat, which went into winter short, suffered by March freezing, but is now 82.5, and is improving much since rains and warm weather. The area as compared with 1887 is 91.3, and the amount now on hand is 16 per cent. The amount of corn on hand is 20.9. The winter has been long and feed scarce, and stock is thin but healthy. The loss of cattle has been heavy—4.3. The season is from ten to fourteen days late."

We do not hear of new complaints of wheat damage to-day except in a limited way. We are hoping to hear that some of the previous reports have been exaggerated, but they do not turn up. We do not know but that a large crop of wheat in this country would prove a public calamity, but hope not. We should like to try it once more. The coming farmers' "trust" could regulate the sale of it so that it would not be offered more rapidly than it was wanted, and if there was too much left unsold at the end of the year the "trust" could just buy it of the farmers. The real point about this trust is, that it must begin at the beginning first and restrict the acreage in wheat.—*Secretary Smith in Toledo Market Report*.

A PROSPEROUS ELEVATOR MAN.

Mr. George S. Barnes of Fargo, Dak., who with his wife recently passed through Chicago on his way home from a European tour, is a striking example of what industry, enterprise and "good luck" will do for a man. It is but a few years since Mr. Barnes was working for wages at Glyndon, Minn. When the great wheat fields of Dakota were opened up by the building of the Northern Pacific Railroad, Mr. Barnes found his way to the new territory, and assisted in shipping the first crop sent out of the Red River Valley. In the course of a short time, the business increased to immense proportions and he amassed a large fortune. In 1886, when Mr. Barnes retired from the presidency of the Northern Pacific Elevator Company, that company owned over 100 elevators, which handled annually over 4,000,000 bushels of wheat. A deal on the Chicago Board about that time lost him some \$200,000, and he concluded to retire from business and spend the rest of his life in ease at his elegant residence at Fargo, attending only to his large stock farm, and making frequent pleasure trips across the ocean. As Mr. Barnes still holds \$250,000 N. P. Elevator stock, he has no fear of a rainy day.

NEW YORK ELEVATOR RINGS AND THE CANALS.

The bill before the New York Legislature, appropriating \$1,000,000 for the improvement of the canals of the state, has stirred up any amount of ill feeling, not in opposition to the canals themselves, but to the "trusts" or "rings" which control the elevators, and whose charges deprive the shippers and boatmen of whatever advantage or profit they might otherwise obtain from the canals.

The Erie Canal is the great link between the harbor of New York, the Hudson River and the great lakes. Without it New York could not assert her supremacy as the shipping port of the United States and a harbor for vessels of all nations. This great waterway belongs to the state, yet it seems to have fallen into the hands of men who use it for their own personal advantage, and by charging enormous rates on all grain that passes from the lakes to the seaboard, grow rich themselves, but in time will drive the traffic away, and the canals will be left to decay from want of use. The people of the state protest against being taxed for canal improvements when the only result will be, not the growth and prosperity of the state, but to swell the gains of the elevator monopolies. If the rings are broken up, the producers and the shippers be allowed equal privileges with the elevator men, then and not till then the people will agree to all necessary improvements in their valuable waterways.

THE GRAIN BAG RING.

As regularly as the "flowers that bloom in the spring" the grain-bag clique of California comes to the front, as determined as ever to draw from the pockets of the farmer its own price for the bags into which he must put his wheat. It was stated some time ago that the ring had succeeded in practically securing the control of all the jute bags in the world. Quite recently a consignment of 800,000 bags arrived at San Francisco from India, for which the owner refused eight cents each in cash. It is plainly to be seen that the ring intend to force the price up to ten cents, and rake in a cool million as their reward.

The ordinary price, allowing a fair profit to the manufacturer, is seven cents, and the difference will show the immense sum the syndicate propose to tax the farmer. Not only are they "cornering" this year's supply, but they are said to have purchased 14,000,000 for delivery in 1889, and made contracts with the Calcutta mills for an option on all bags manufactured in excess of the demand from India. It has also "cornered" the means of transporting bags from India by contracting for all the steamer freight up to July or August, 1889.

The directors of the prison at San Quentin, the only place where jute bags are manufactured in this country, are doing what they can to protect the farmers from this imposition by selling directly to them, instead of to dealers as formerly. The output of the prison will be between 2,000,000 and 2,500,000 bags which they will sell at eight cents apiece. They are already overrun with orders. It requires 40,000,000 bags to cover the wheat crop of the Pacific coast in ordinary seasons.

ELEVATOR AND GRAIN NEWS

A grain elevator is wanted at Killarney, Man.

James Hiner, grain dealer, Vanceburg, Ky., has sold out.

Thomas Gibbs, Blue Ridge, N. C., has erected a corn mill.

A 100,000-bushel elevator is to be erected at Fort Dodge, Iowa.

J. L. Lowe, Maryville, Tenn., has established a broom factory.

J. L. Caldwell & Co., grain dealers, Carson, Iowa, have sold out.

Ole Michaelson, grain dealer, Leland, Iowa, is erecting a new residence.

D. F. Bennett and Proctor & Son, Forsyth, Ga., have erected a corn mill.

W. H. Brumberry, Jr., Camilla, Ga., has added a feed mill to his corn mill.

The Covington Flour Mill Co., Covington, Tenn., will build a grain elevator.

Johnson & Mason, grain dealers, Hastings, Iowa, have dissolved partnership.

J. S. Smith & Co., grain and coal dealers, Greeley, Neb., have suspended.

The Farmers' Alliance of Marcus, Iowa, will erect a 20,000-bushel elevator.

A stock company has been organized at Montgomery, Ala., to erect a brewery.

Jacob Adam, Belleville, Ill., will erect a 20,000-bushel elevator, 40x60 feet in size.

Slinger & Currie, dealers in grain, etc., Cambria, Wis., have dissolved partnership.

J. H. Mickerson, Canton, Dak., will erect a grain elevator the coming summer.

A syndicate of Dakota capitalists will erect a grain elevator at Tower, that territory.

H. A. Frazier, dealer in grain, etc., Martinsburg, West Va., has made an assignment.

Miles & Mitts are successors to C. W. Adams in the grain business at Carroll, Iowa.

The La Moure Milling Co., La Moure, Dak., will build a wheat warehouse next season.

Berns & Logan of Sheldon, Dak., will erect a 25,000-bushel elevator at Canton, that territory.

A new elevator is being constructed at Farwell, Mich., with a capacity for 40,000 bushels of grain.

A. L. Mansfield, Dunlap, Tenn., will purchase burr and roller machinery for a corn and flour mill.

George Baker has purchased the interest of J. H. Alsbury in the grain elevator business at Weldon, Ill.

Wilson & McInnis, proprietors of cotton and corn mills at Hattiesburg, Miss., have dissolved partnership.

A stock company is being formed at Douglas, N. W. T., to build a grain elevator of 35,000-bushels capacity.

The elevators at Port Colborne and Port Dalhousie, Ont., will be open for business as usual this season.

Isaac Leisey and D. S. Whitehead of Cleveland, Ohio, are negotiating for a site for a brewery at Augusta, Ga.

A local paper states that B. F. Baumgardner, grain merchant, Downs, Ill., will remove to Mahomet, this state.

The Morristown Broom Company at Morristown, Tenn., have increased their capital stock and will purchase new machinery.

George B. Whiteside is interested in a broom factory to be established at Columbus, Ga. Estimates on machinery are wanted.

The Farmers' Co-operative Mfg. Company, Shiloh, N. C., have contracted for the machinery for a 30-ton cotton-seed oil mill.

E. Alexander, grain dealer, Mansfield, Iowa, contemplates removing to Southern Missouri in search of a more genial climate.

The N. & N. W. elevator at Toronto, Ont., owned by the Grand Trunk Railway Company, will shortly be closed for repairs.

The Planters' Oil Company of Greenville, Miss., have enlarged the capacity of their cotton-seed oil mill to fifty tons of seed per day.

The Western Grain Company lately incorporated at Birmingham, Ala., will erect a 100,000-bushel grain elevator the coming summer.

E. A. Weigler, grain buyer, Sun Prairie, Wis., has made an assignment for the benefit of his creditors. Liabilities \$17,000; assets \$8,000.

Nelson Hartson, grain merchant, Rising City, Neb., contemplates establishing a colony of about thirty families either in California or Arizona.

The Planters' Stock Company has been organized by a number of farmers in the vicinity of Delta, Neb., to build grain elevators and deal in grain, stock, coal, etc.,

etc. The capital stock is \$25,000. Their headquarters will be at Delta. Henry Pahde, George Badding and others are the incorporators.

C. H. Evans, Hudson, N. Y., will make extensive improvements upon his brewery. The proposed addition will entail an expenditure of \$80,000.

The total receipts of wheat at Duluth, Minn., for March were 830,000 bushels, and it is predicted that the receipts for April will be three times as large.

The Gem Feed Mill Company has been incorporated at Rock Island, Ill., with a capital stock of \$1,500. T. J. Reddy and others are the incorporators.

The grain elevator of J. F. Parrish & Co., at Norton, Kan., narrowly escaped destruction on April 12, through the burning of some coal sheds near by.

Coneville, Iowa, boasts of having shelled 800 carloads of corn the past winter; this aggregates \$2,000 for the work of one sheller for the three months.

Thompson & Johnson, proprietors of the "Red River Valley Mills" at Fisher, Minn., will shortly begin the erection of a 200,000-bushel grain elevator.

Sampson Hoch, an extensive grain dealer miller at Dora, near Wabash, Ind., assigned April 12. His liabilities are \$15,000, with assets to the amount of \$20,000.

A syndicate of Dakota farmers is considering the project of erecting an elevator at Duluth, Minn. The Winona Republican predicts that they will regret it if they do.

M. R. Haynes formerly station agent at Oswego, Ill., has removed to Weston, this state, where he will engage in the grain business for Haynes, Gordon & Co. of Genoa.

Max J. Hipp of Monroeville, Ohio, writes us that, in company with Mr. Heyman, he has purchased an elevator at Wakeman, that state, and will take possession of it July 1.

W. L. Gray, junior partner of the firm of Gray & Son, grain buyers, Weldon, Ill., was married April 10 to Miss Olive Anderson of that place. We tender our congratulations.

The Anheuser-Busch Brewing Company, Omaha, Neb., will shortly commence the erection of a new building. It is to be of brick, three stories in height, and will cost \$40,000.

Head & Christie, grain buyers, Rapid City, Man., will erect a 40,000-bushel elevator at Oak River, that province, as soon as the Northwest Central Railway is completed to that place.

The C. C. Washburn Company of Minneapolis, Minn., has purchased the ground adjoining the Washburn "A" Mill, upon which will be erected next season a 30,000-bushel elevator.

The Globe Elevator Company has been incorporated with headquarters at Minneapolis, Minn.; the capital stock is \$300,000. The incorporators are L. H. Christian, G. M. Yates and others.

The quantity of wheat marketed at Virden, Man., since the commencement of the season amounts to about 400,000 bushels, and it is estimated that there are 200,000 bushels yet to be delivered.

The marine leg of the railroad elevator at Hastings, Minn., has been taken down for shipment to Minneapolis. A local paper says the business of shipping wheat by barges there is a thing of the past.

The South Branch Elevator Company has been incorporated at Avoca, Iowa, with a capital stock of \$24,000. The incorporators are H. O. Seiffert, Henry Weise, Chas. N. Voss and W. H. Freeman.

The Cook County Automatic Refrigerating Company has been incorporated at Chicago, with a capital stock of \$1,000,000, to erect business and packing houses. Carl D. Bradley and others are the incorporators.

The Skakel Commission Company has been incorporated at Chicago, Ill., to deal in grain and other merchandise. The incorporators are William Skakel, A. J. Murtha and G. N. Grut. They have a capital stock of \$100,000.

The farmers in the vicinity of Hastings, Ont., will probably lose from \$20,000 to \$30,000 by the hull-less oat scheme. As usual, the makers of the notes are seeking to have them declared worthless on the ground of fraud.

The Indianapolis Journal says: It is stated that the greatest sufferers in business, through the failure of the grain crop, are the Wabash Western and the Wabash proper, which is shown by the falling off in their earnings the last few weeks.

Peterson & Co., grain merchants, doing business on the Duluth (Minn.) Board of Trade, suspended March 28. Their liabilities are estimated at \$3,000. The failure was caused by a protested draft. The firm was supposed to be short of May wheat.

Judge E. T. Wilder, assignee of the Minnesota Elevator Company of Red Wing, Minn., has been directed to distribute to the creditors of that corporation a final dividend of 5 per cent. The creditors will then have received 43 per cent. on their claims.

The Red Wing, Duluth and Sioux City Construction Company has been incorporated with headquarters at Red Wing, Minn. The object of the company is the constructing and operating within Minnesota and elsewhere of lines of railroad, telegraph, piers, elevators, etc. The

capital stock is \$500,000. The directors are James H. Davidson, St. Paul; T. E. Byrnes, Minneapolis; R. S. Munger, Duluth, and others.

The Fitchburg R. R. Company have established terminal facilities on the Erie Canal, at Rotterdam Junction, N. Y., and are erecting a 500,000-bushel elevator there. The elevator will be 70x140 feet in size, and at one end of it there will be a wharf 350 feet long.

A. F. Norris, one of the large farmers in the vicinity of Hunter, Dak., recently purchased a carload of No. 1 hard red Fyfe wheat at Winnipeg, Man., paying \$100 per bushel and 20 cents duty for it. Mr. Norris will experiment with the Manitoba wheat on Dakota soil.

The Vicksburg Cottonseed Oil Company has been incorporated at Vicksburg, Miss., with Chas. Mulholland president. They have a capital stock of \$50,000. They expect to have their building completed and machinery in place in time to commence work by Sept. 1.

General Superintendent W. Whyte of the Canadian Pacific Railway, states that there are about 2,250,000 bushels of wheat in store at Port Arthur, Ont., 3,000,000 bushels yet in the hands of the farmers, and 2,000,000 bushels in the elevators and warehouses throughout the country, making in all, with the 8,000,000 bushels shipped past Winnipeg, 13,000,000 bushels for export.

George W. Smith and Alexander Kane have been arrested at Murfreesboro, Tenn., and lodged in jail at Springfield, Mo. Some months ago they and others, calling themselves the Missouri & Kansas Grain Company, were engaged in the Ohio Hybrid wheat swindle among farmers in Greene and adjoining counties in Missouri, to whom they sold wheat at \$15 a bushel and bound themselves in writing to sell for the purchasers the wheat raised at the same price the succeeding season. Pay was taken in notes, which in Greene county alone will aggregate about \$100,000. The affair was investigated by the grand jury, and all the parties indicted, but Kane, the superintendent, Smith, the vice-president, and Schuyler S. Cox of Bryon, Ohio, made their escape.

G. W. Lake, for many years the confidential bookkeeper of T. M. Baxter, one of the largest commission men on the Chicago Board of Trade, has developed into a full fledged swindler. He is twenty-six years of age, and has been in Mr. Baxter's employ for more than seven years. He had the full confidence of his employer, being empowered to sign checks in his absence, and in general had the full run of the business. Investigation showed that his stealings began in 1884 and amounted to about \$18,000 during the four years, grain settlements having been extensively tampered with and checks raised. When confronted with the proofs of his guilt, Lake offered to make all the restitution in his power. He repaid about \$13,000 of his stealings. Mr. Baxter did not prosecute him. Lake is now supposed to be in Dakota.

THE "LITTLE BRASS KETTLE."

The simple instrument known as the brass grain tester, designed to show the weight per bushel of grain, is the subject of much division of opinion between grain dealers, and especially between dealers and the farmers. For instance, some two years since at Shelby, Ohio (an extensive grain market) the grain buyers all adopted the Fairbanks tester as the standard by which to buy, and the farmers at once rebelled against the mysterious machine. They vowed they would not sell there, and emphasized their superstitious boycott by forming a long procession of loads of grain, headed by a band, and displaying banners, drove triumphantly to Mansfield, ten miles away, where the grain buyers received them gladly, without testers, making a good big guess-allowance for dirt and low weight, and none for the extra quality of 62-pound wheat. The farmers were satisfied, as the dealers surely were, for the dealer who cannot guess on the right side has no business there. Flatter the farmer just right and he will take risks on your guesser rather than on the mysteries of the tester, which he believes to be gotten up simply to cheat him. The farmer who don't believe his wheat is as clean and plump and heavy as any other man's deserving the highest price is an exception, but the shrewdest, most exacting mill owner that we know of, who is a grain buyer, is an old farmer, and thereby hangs a moral.

There ought to be no antagonism between buyers and sellers of grain, and there is not when they are of equal intelligence. All should be willing to abide by a right and common standard, and if the tester indicates that standard, it should be used. As to the accuracy and usefulness of the tester, there is a difference of opinion even among buyers who use it. There may be a difference in the way the measure is filled, for grain will pack, and whether the grain is put in loosely, or packed by scooping, or pressed with the hand, or rapped down, furnishes the ground for dispute. The right way is to always lay the measure on its side, and fill it with the hand loosely, and strike it without any rapping down, and if always filled alike the same weight will be indicated on the same grain, and it is an accurate comparative test. Its successful adoption depends on all the competitive buyers of a neighborhood adopting it. It is a thing every wheat buyer should have. If your competitors will not adopt it, and your farmers object to it, keep one anyhow to make tests for your own instruction, that you may learn to judge the comparative weight and value of grain, and be able to use your guesser for your own profit and the farmer's satisfaction.—Modern Miller.

Fires, Casualties, Etc.

George B. Macklin, grain dealer, Frankfort, Ky., has died.

The brewery of L. Rabolt at Sutter Creek, Cal., was damaged by fire to the amount of \$3,500.

The building of L. H. Chamberlain & Co., grain dealers, South Lavenia, N. Y., has been damaged by fire.

The elevator at Morristown, Minn., was blown down during the wind storm which swept over that place April 4.

Schwartz's brewery and distillery at Titusville, Pa., were destroyed by fire March 18. Loss \$30,000; fully insured.

Lew Smith of Gridley, Ill., while getting some corn out of Watkins & Clark's elevator, had his arm accidentally caught in the hopper and the muscles severely torn.

Two steel rollers used to grind malt in Trefz's brewery at Newark, N. J., exploded on the morning of March 26, breaking the doors and windows. Fortunately no one was injured.

Chas. B. Lathrop of the firm of J. Lathrop & Co., operating on the New York Produce Exchange, died very suddenly at his home in Astoria, L. I., April 7, of paralysis of the heart.

On March 29 the large granary on Eppinger & Co.'s ranch, near Germantown, Cal., was destroyed by fire. Six hundred bags of barley and a lot of machinery were consumed. Loss \$3,000.

The roller mills and elevator at Tecumseh, Neb., owned by James Hill, were burned to the ground April 7. Two carloads of wheat and two of corn were consumed. Loss \$20,000; insurance \$3,000.

The grain office of P. G. Jones at Leroy, Ill., was burglarized on the night of March 19. The office desk was broken open but no money was secured. A hatchet was the only trophy secured by the thieves.

The grain elevator at Wellsburg, Iowa, owned by the J. A. Carton Company of Ackley, that state, burned to the ground March 26. There were 15,000 bushels of oats and some other grain destroyed. Loss \$10,000; insurance \$8,000.

The elevator and warehouse together with 35,000 bushels of wheat, were destroyed by fire at the same time with the 200 barrel roller mill of A. Bettinger & Co. at Larimore, Dak., March 16. Loss \$65,000; insurance \$42,000.

J. B. Christian's elevator at Hamburg, Iowa, was consumed by fire March 23, involving a loss of \$10,000. The fire is supposed to have originated in the engine room. The elevator was insured for \$3,000; there was no insurance on the grain.

Tucker's elevator, office building and corn cribs at Iowa Falls, Iowa, were destroyed by fire March 17. The elevator was full of oats and the cribs full of corn. The fire is supposed to have originated from friction in the corn sheller. Loss \$13,000; fully insured.

R. P. Wood, grain dealer, Colfax, Ill., met with a painful injury on March 29. In some way he fell down the stairs of his elevator, dislocating his left ankle, and displacing a tendon of one of the muscles. The accident will confine him to the house for several weeks.

The grain elevator belonging to H. Strong at St. Thomas, Dak., burned March 18 with its contents. There were 20,000 bushels of grain consumed, on which there was \$15,000 insurance. The loss on the building is estimated at \$5,000, partially covered by insurance.

The storehouse connected with Robson Bros.' flouring mill at Waterloo, Ont., was destroyed by fire March 25. Nearly 4,000 bushels of grain were so damaged as to be almost useless. This is the third time in two months that the building has been on fire, and it is supposed to be the work of incendiaries.

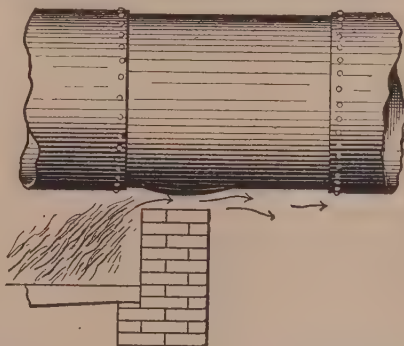
G. P. Wilson of the commission firm of Wilson & Maxfield, Minneapolis, Minn., died on the night of March 18, of typhoid fever. Mr. Wilson was a prominent member of the Minneapolis Chamber of Commerce, and was highly esteemed in business circles. He was born at Smyrna, N. Y., and became a resident of Minneapolis in 1885, associating himself with Mr. Maxfield in the commission trade.

The decease is announced of W. D. Matthews, the well-known barley and malt dealer of Toronto, Ont., and Le Roy, N. Y. His son, W. D. Matthews, Jr., is now the president of the Toronto Board of Trade. Mr. Matthews was born at Burford, Ont., where his father, Abner T. Matthews, was extensively engaged in flour and lumber milling, as well as farming. The subject of this sketch subsequently engaged in the milling business at Rockford, Ont., removing to Toronto in 1856. In 1873 he formed a partnership with his son and they carried on an immense business in flour and grain, giving particular

attention to the handling of barley and malt. Mr. Matthews was known throughout the Province of Ontario as the "Barley King." He was twice elected president of the Toronto Corn Exchange. He was sixty-six years of age at the time of his death, which resulted from cancer of the stomach.

TOO MUCH HEAT IN ONE PLACE.

The concentration of heat at some part of the fire surface is bad, if not dangerous, and may cause serious trouble. It is probably impossible to distribute the heat perfectly, but avoid concentrating, in such places as where the flame passes up over the bridge wall too close, or from an outside surface, in under the boiler. An instance of this came under my observation in a shop close by. The



bridge wall was carried up too near the shell near the middle of the length of the boiler, and having a good draft and very combustible fuel the water was driven away from the plate at this point, so that it became hotter than any other part and bagged down, starting the seams adjoining, and cracking the plates so that when the water returned it leaked a good stream. Some of the wise ones will dispute me in this, but as there was no scale or sediment in the boiler, I assume that the water was driven away, for a short time at least. See the illustration.—*Savannah Gazette.*

A COMMERCIAL ROMANCE.

Perhaps no product of the fields has had a more rapid rise in point of usefulness and value than has the cotton seed. Not many years ago it was considered a useless commodity, and was ignominiously consigned to the waste heap and burned. Now it enters into nearly every article where a fatty constituent is possible, and ranks high as an adulterant. The *Atlanta Constitution* has woven quite a little romance out of the story of its rise in agricultural commerce. It says: "Was ever there a history, this side of Cinderella, of the uprising of humility, like that of the cotton seed. See!

For seventy years despised as a nuisance and burned or dumped as garbage.

Then discovered to be the very food for which the soil was hungering, and reluctantly admitted to the rank of ugly utilities.

Shortly afterward found to be nutritious food for beast as well as soil, and thereupon treated with something like respect.

Once admitted to the circle of farm husbandries, found to hold thirty-five gallons of pure oil to the ton, worth in its crude state \$14 to the ton, or \$40,000,000 for the whole crop of seed.

But then a system was devised for refining the oil up to a value of \$1 a gallon, and the frugal Italians placed a cask of it at the root of every olive tree, and then defiled the Borean breath of the Alps.

And then experience showed that the ton of cotton seed was a better fertilizer and a better stock food when robbed of its thirty-five gallons of oil than before.

And that the hulls of the seed made the best of fuel for feeding the oil mill engine!

And that the ashes of the hulls scooped from the engine's drift had the highest commercial values as potash!

And that the "refuse" of the whole made the best and purest soap stock to carry to the toilet the perfumes of Lubin or Colgate!

About this time we began to spell cotton seed with capital letters.

And how it traveled abroad in its various dresses! As meal cakes it whitened the meadows of England with woolly fleeces and fattened the British cattle under the oaks; it sputtered on the stoves of the Dutch in lieu of lard; it glistened in the cafes of Paris as olive oils under seals and signatures it couldn't even pronounce to save its life; and from under the dikes in Holland it went forth to parade in all the bravery of butter and butterine.

In our own country it renewed the wasting strength of Southern fields, and clad them with whiteness that would shame the fleeces of England, or yellow that would pale the fleeces of Argonauts. It knocked the Western hog into spots and poured the Western lard out of the frying-pan into the fire. It furnished the Armours and Fairbanks with a pure substitute for the rancid fat they had been shipping us, and suggested the possibility of a clean and cheap lard.

And about this time Congress jumped on to cotton seed with both feet, and proposed to check its further career by a prohibitory tax.

THE SUPPLY OF CORN.

In a letter to Trafton's *N. Y. Produce Exchange Reporter*, Mr. Oscar K. Lyle gives the following figures about corn: The states of Ohio, Indiana, Illinois, Iowa, Missouri, Kansas and Nebraska had on hand March 1, 1884, 308,000,000 bushels of corn. Their crop in 1884 was 1,176,000,000 bushels and the sum of these two is their supply from March 1, 1884, to March 1, 1885, or 1,484,000,000 bushels. Deducting 437,000,000 bushels remaining on March 1, 1885, we have, as entering consumption and removal in one year, 1,047,000,000 bushels.

In a similar way, with crop of 1,240,000,000 bushels in 1885 and holdings March 1, 1886, of 481,000,000 bushels, we determine 1,196,000,000 bushels as entering consumption and removal in the succeeding year. With 344,000,000 bushels on March 1, 1887, and crop of 1,000,000,000 bushels in 1886, we ascertain consumption and removal of 1,137,000,000 bushels for another year. With 344,000,000 bushels in holding on March 1, 1887, and a crop of 780,000,000 bushels in that year, and remaining in farmers' hands 240,000,000 bushels on March 1, 1888, we have 884,000,000 bushels as another year's consumption and removal.

The average of these four seasons gives in holding March 1, 892,500,000 bushels; crop 1,049,000,000 bushels and consumption and removal 1,066,000,000 bushels. The latter has exceeded production, and the reserves or holdings on March 1, 1884, appear reduced 144,000,000 bushels up to March 1, 1888.

Corn from the crop of 1888 will hardly be available before November, or say eight months from March 1. The indicated consumption and removal of four years has averaged nearly 89,900,000 bushels monthly. This, however, does not properly apply in determining the future consumption and removal to November, since there is a large increase in consumption in the late fall and winter over the balance of the year. Eight months' consumption and removal, on indicated average, will require nearly 720,000,000 bushels to be drawn from a supply of 240,000,000 bushels.

On the basis of year ending March 1, 1888, we have a monthly average of over 73,000,000 bushels, which would give for eight months' consumption and removal nearly 590,000,000 bushels to be drawn from a supply of 240,000,000 bushels. The above statements exhaust the old corn in the country. There will always be some in holding, and there may be some new corn used before November and these features may cancel.

In the states outside of the seven surplus states, the production in 1887 was increased but 11,000,000 bushels over 1886. I make it that consumption in the seven surplus states has been recently 940,000,000 bushels and removal from those states some 126,000,000 bushels annually. With a crop of 780,000,000 bushels in them in 1887, this indicates a demand within those states for 160,000,000 bushels, because of under production, against a lessening of demand from other states, from over production, of 16,000,000 bushels, or as fifteen to one.

THE ELEVATOR PROBLEM—\$500 REWARD.

To the *Albany Evening Journal*: The actual cost of transferring grain shipped by rail (outside of trimming charges) at the ports of Boston, Philadelphia, Baltimore or Newport News does not exceed a sixteenth of one cent a bushel; whereas grain shipped by the lakes and canal route is forced to pay the elevator charges at Buffalo and New York forty-one times as much. The following exhibits explain the matter:

Buffalo:	
Grain pays elevator a sixteenth.....	12 times.
Propeller pays for elevating—a sixteenth.....	2 "
Steam shovel pays elevator—a sixteenth.....	4 "
Total sixteenths received by elevators (outside of trimmers' charges).....	18 "
New York:	
The elevator receives a sixteenth from grain, canal boat and ship (outside of trimmers' charges)....	23 "
Total number paid of sixteenths paid elevators at both points.....	41 "

We, the undersigned boat-owners, will pay the above reward to whoever can convince us that the above statement is not absolutely true. Please publish this offer in a conspicuous place, and put our names to it. Our object is to show to legislators that canal protection is of far more importance to reduce the cost of canal transportation than the proposed improvements are.

W. H. KENNEY,	R. T. CAMPBELL,
R. H. STALEY,	ALFRED HAMILTON.
L. C. PUTNAM,	R. CORNWALL,
PALMER D. TRAVIS,	HOWARD STELLER,
L. HAMILTON,	WM. ALLEN.

New York, March 13, '88.

HE WASN'T THERE.

"Speaking about high figures on freights," said a Chicago lake captain as he crossed his legs and rolled his quid, "what do you suppose was offered for carrying corn from Chicago to Buffalo in 1865?"

"Give it up."

"Ten cents a bushel, sir, and vessels scarce at that. Any sort of a schooner would clear \$8,000 to the trip."

"And didn't you get rich at that?"

"Oh, no; at that time I was husking that same corn at four cents a bushel and boarding myself!"

THE AMERICAN ELEVATOR AND GRAIN TRADE

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A. J. MITCHELL, - - - Business Manager.
HARLEY B. MITCHELL, - - - Editor.

ADVERTISING.

This paper has a large circulation among the elevator men and grain dealers of the country, and is the best medium in the United States for reaching this trade. Advertising rates made known upon application.

CORRESPONDENCE.

We solicit correspondence upon all topics of interest connected with the handling of grain or cognate subjects.

CHICAGO, ILL., APRIL 15, 1888.

A FARMERS' TRUST.

The Farmers' Club of Meriden, Kan., has taken the initial step in the formation of a Farmers' Trust, and has issued a call for a mass convention of farmers and stock men to meet in Topeka, Tuesday, May 1. The governors of all the states in the Mississippi Valley have been requested to send delegates. In the address issued urging the farmers and others to attend the convention, the object of the proposed organization is stated to be the control of shipments so as to regulate the supply of agricultural commodities, and in this way insure fair prices.

The address goes on to say, "The farmers of this country cannot compete with Indian wheat in the Liverpool market, nor do we intend longer to submit to the payment of the cost of taking our wheat to Liverpool, before it can be sold in our home market. What we want is a fair exchange of products. This we demand, and will submit to nothing else. We have the power, and all that is needed is organization to make the power effective."

It is proposed to establish ten central agencies at Chicago, Kansas City, Indianapolis, Omaha, St. Louis, St. Paul, Cedar Rapids, Cincinnati, Milwaukee and Louisville, these agencies to do all the selling for members of the association, for which they shall be paid stated salaries. District and sub-district associations will also be formed, and local shipping agents appointed, and no shipments allowed except upon permits from the executive board. The executive board will constitute a bureau of statistics, to whom the secretaries of the sub-district associations will be required to make monthly crop reports, and by those as compared with the demand of former years, the board can determine whether there is an over-production or shortage, and can regulate the amount of shipments accordingly so as to maintain the suitable prices.

That such a trust will fail, need hardly be argued. That by combination and co-operation, the farmers of the West may do much to better their lot and obtain better prices, no one will deny; but a farmer's trust, as that much-used word is now understood, is an utter impossibility. If a part of the scheme be the discouraging of raising such large supplies of cereals, that might be to the farmer's best interests in more ways than one; but so long as a surplus is raised and shipped abroad to find a market, the American farmer cannot hope by any organization, however

compact, to greatly enhance the value of his products. So long as a surplus is raised, the world's demand will fix the value of those products; and if production is curtailed, a tariff will be necessary to maintain prices on the farmer's produce. Taken all in all, the outlook for the farmer's trust is not very rosy.

EXPORTS OF BREADSTUFFS.

The report of the Bureau of Statistics at Washington, issued April 10, for the month of March, 1888, shows a decrease in corn, oats and wheat, as compared with the same month in the previous year. The total value of the breadstuffs exported during March, 1888, was \$9,040,743, against \$15,001,078 for the same month in 1887. The value of the exports for the nine months ending March 31, 1888, was \$100,844,473, against \$119,671,531 for the nine months ending March 31, 1887.

The exports of corn for the month of March, 1888, were 2,115,666 bushels, against 5,352,130 bushels for the same month in 1887. There were 21,819 bushel of oats exported in March, 1888, against 25,683 bushels in the same month 1887. The amount of wheat exported during the months named was 4,077,237 bushels in March, 1888, against 7,722,788 in March, 1887. The exports of rye were 2,760 bushels in March, 1888, against 61,470 bushels for the same month in 1887.

WHY IS WHEAT SO LOW PRICED?

A writer on the above question in *Chambers' Journal*, after reviewing the history of wheat prices for years past, and speaking of the new fields which have been opened up in Australia, India and elsewhere for competition in the world's markets, gives as a reason for the low prices of to-day, the fall in the value of silver. The great area of wheat-growing land in India furnished last year over six million tons. For this the Indian grower is paid in silver rupees whose value in his country never changes. In Europe silver is only an article of merchandise, and is not like gold, a standard of value. Since 1873 its value has declined 30 per cent. A small charge for coinage is made at the Indian mint, but it is found in effect that eight ounces of silver will lay down in London one quarter (eight of our bushels) of wheat. If the silver costs him five shillings (\$1.20) per ounce, as it did on the average before 1873, the wheat might be sold in London at about forty shillings (\$9.60) per quarter; but if it costs, as it does to-day, only three shillings and eight pence (88c.) per ounce, then he can afford to sell his Indian wheat in the London market at 29s. 4d. (\$7.04) per quarter or about 86c. per bushel.

The fact is evident that India has considerable influence on the price of wheat in England, and that this is owing to the fall in the value of silver. As to the question, is India ever likely to supply the entire British market with wheat, the writer says it is difficult to answer, as authorities differ in regard to it.

WATERWAYS VS. RAILWAYS.

Some facts and figures as to the relative cost of transportation by water and rail have been furnished to the Citizens' Association of Chicago by Mr. L. E. Cooley, a civil engineer. He shows that a waterway is in the nature of things a permanent structure which deteriorates but slowly and the maintenance of which, under favorable circumstances, is a nominal charge. Railways on the contrary need constant repairs and renewals requiring a good proportion of the gross earnings. If neglected the railway is practically ruined, while the waterway continues in nearly its original usefulness. In competition he says it is simply a question as to which can do the work the cheapest. The cost per ton per mile on the best railroads is three mills for through freight. This includes all expenses except capital account. The rates on the Erie Canal for some years have ranged in the vicinity of three mills. This of course represents only the expense of traffic and

the profits, and not the maintenance and operation of the canal. This would add about one-third mill or the cost is not greatly different from that of the best railroads. If a waterway cannot carry at a profit of one mill per ton per mile, it is beyond the reach of any long-continued railway competition on the class of freight to which it is adapted.

The question of time is not considered, and as that is the great object to most business men, the railway will probably continue to keep the upper hand as the favorite method of transportation for some classes of freight. The value of canals is, however, beginning again after some years of neglect, to claim the attention of shippers, and the figures shown by the "big ditches" of New York and other states for the past season's traffic will have their effect.

THE ANTI-CORNER RULE.

The Grain Receivers' Association of the Chicago Board of Trade have asked that body to repeal the anti-corner rule. This association numbers among its members the men who do most of the dealing in the "actual stuff" on the Board, and their opinions and wishes are entitled to weight. No one claims that corners are a valuable auxiliary to business; but the claim is made with a good deal of force that the buyers should not be hampered so long as the short sellers are not. In fact, as matters stand now, the advantage is all on the side of the short seller. Even with the corner rule abolished, there will be advantage enough on the short side, in the matter of the carrying charges on the other fellow. By all means let the corner rule go and let the bulls and bears fight their own battles without let or hindrance, until some means can be devised to stop both "corners" and "raids," which at present seems far in the future. A bear raid is as bad as a bull corner, and if both cannot be stopped, both sides should be left free, so far as Board rules are concerned.

THE CASH GRAIN DEALERS.

It will be seen that the country cash dealers have effected an organization which has for its purpose the counteracting of the bear raids on the markets. The bear side has had things all its own way for a long time, and the cash dealers in the country propose to take a hand in future capers which the bears may cut. Welded together in a compact organization, we think they would be found more than a match for the bears whose prerogative it has been hitherto, to confiscate a part of the country dealers' grain, or, rather, its price, whenever it suited their caprice. There are plenty of people gunning for bears just now, and, perhaps, a year from now bear meat will be as common a commodity on the exchanges as lamb's wool has been hitherto.

THE CANAL COMPLICATIONS.

There seems to be a difference of opinion in New York as to whether the state should give a million dollars to improve the canals, or lighten commerce by clipping the wings of the elevator vultures at Buffalo. One party strenuously insists that the state should not give aid to the canals without first regulating the charges which are now conditioned upon the use of the canals. They want the state to regulate the elevator and wharfage charges and then provide for the increased wants of the commerce thus invited. We think this party is right. The state has done more than its share of taking off tolls. Not a cent more than the canals require for actual maintenance should be given until the transfer charges on grain at Buffalo are reduced to the reasonable limit of other commodities.

JUDGE E. T. WILDER, assignee of the Minnesota Elevator Company at Red Wing, Minn., has been directed by order of the court to distribute to creditors of that corporation a final dividend of 5 per cent. The creditors will thus have received 43 per cent. on their claims.

Editorial Mention.

THERE is only about half the grain in Milwaukee now that there was last year at this time, and grain charters are low.

LOOK this paper over carefully and ask yourself if twelve issues like it are not worth a dollar to you. Then send us the dollar.

THE railway strike in Chicago interfered seriously with the grain movement here. Some days the receipts were almost nothing.

JUDGING from the reports received in Chicago, the winter wheat crop in the central states will be very short. One report says that Ohio will not have a fourth of a full crop.

UNDER the proposed Mills tariff bill now pending in Congress, grain seed comes in duty free. Grains include wheat, rye, barley, oats and Indian corn, and under that clause they will come in free.

TABOR & BALDWIN of Clark, Dak., writes us: "We used to take the AMERICAN ELEVATOR AND GRAIN TRADE when in business at Merrimac, Wis. We received the copy sent us. It looks good, so find \$1 for it."

CAPT. DE PUY wields a vigorous pen, and corrects a misstatement that crept into our last issue. The captain has done much for the canal interests of both East and West, and if the Albany chaps will listen to him, a good deal more will be done.

THE CENTRAL ELEVATOR Co. is now the style of the former Central Warehouse and Elevator Co. of Birmingham, Ala. The Central Co. make a specialty of handling bulk grain. Their card will be found under the appropriate head on another page.

THE Toronto *Globe* cruelly insinuates that the Canadian Pacific Railway Co. may not have exerted itself very much to move out the last Manitoba wheat crop because it might make more money by holding the crop in its elevators than by hauling it away.

FRANK KAUCHER of St. Joseph, Mo., elevator builder and contractor and dealer in mill and grain elevator supplies, has issued a neat circular setting forth the strong points of the Kaucher Grain Elevator System both for small stations and for terminal points.

THE Minnesota State Farmers' Alliance at its recent meeting at St. Paul, "demanded" and "protested" a good deal. Among its protests was one against the bonding of country elevators, and one of the demands was the furnishing of cars at the demand of the shipper.

THE new schedule of grain charges at Buffalo goes into effect on April 16. The actual charge to receivers from elevators, transferring, five days' storage and delivering to wagon on any track entering the city, will be a quarter of a cent for wheat, corn and barley, and three-eighths for oats.

THE indications all point to a large corn crop in Illinois the coming season. The crop for 1887 was twelve bushels below the average, while the quality was 5 per cent. above the average. The results of an inquiry by the Agricultural Department, into the consumption of corn in years of short crops, shows that there is no fixed requirement of corn for annual consumption. The reduction of product did not change very much the percentage of the crop in farmers' hands on

March 1. Shipments were less and consumption less. The increase of price, which always follows a reduction of product, limits the use of corn on the farm and elsewhere, cheaper grain product, or coarse forage taking its place.

THE House Committee on Agriculture will make an adverse report to Congress on the several bills proposing to pay export bounties on corn, wheat and flour. One cause of such action was a telegram received from St. Louis stating that the pending of the bill was injuring American dealers in effecting sales for future delivery.

CAPTAIN F. WARREN of the Royal Navy in a lecture on the "Corn Supply of England in Case of War," urges upon the government the necessity of building granaries to hold twenty-four million quarters, or at least one year's supply of grain. He says that a great war would send up the price of wheat twenty shillings per quarter in freight and insurance alone.

THE Grain Shovelers' Union of Buffalo has fixed the annual rates for unloading vessels at that port at \$4.50 per thousand on steam and \$4 on sail vessels, \$8 for propeller Nyack, \$10 for hot grain, \$1.25 for trimming canalboats and ten cents per hundred for trimming cars, no work to be done between midnight Saturday and 7 A. M. Monday. These rates are about the same as last year.

THE marine underwriters have taken up arms against the overloading of vessels. This, as everyone knows, has been a crying evil and has been the cause of a large proportion of the losses upon the lakes. The underwriters simply propose not to insure vessels that are overloaded, and then if they go down, the loss will be that of the avaricious parties who hazard their property for the amount to be gained by this dangerous practice.

MR. GEO. B. REEVE, traffic manager of the Chicago & Grand Trunk Railway, entertained in the most hospitable style the Board of Trade party that went out to investigate the company's transfer house at Elsdon. A dining car was attached to the train, and Mr. Reeve sustained the reputation of an excellent host, as well as that of an enterprising business man in supplying his road with a transfer house so complete in all its appointments.

WE are in receipt of a copy of the very handsome, illustrated catalogue of the E. H. Pease Mfg. Co., Racine, Wis., just issued for the year 1888. It contains all the revised pulley, shafting and other price lists together with a full line of grain elevator fittings complete. It also has a page of most useful information to grain dealers. Altogether this book of 64 pages is one which will be a valuable one to keep for reference. We congratulate our Racine friends upon their good taste.

THE NEW YORK BELTING AND PACKING COMPANY of New York City have supplied their trade with the largest rubber belts ever manufactured in the United States, and their wares, which have a national reputation for superiority, are meeting with great favor in foreign countries as well. At the warehouse of the company, 15 Park Row, New York City, may be seen immense rubber elevator belts, weighing eight tons, in transit, via Hamburg, American Packet Company to Budapest, Germany.

THE Chicago, Burlington & Quincy has restored the freight rates between all points on its lines to the tariff in effect previous to Feb. 1, 1888. At the same time it was officially announced that the rates on corn and oats from Iowa, Minnesota and Nebraska, to Chicago, were not included in the advance, but would remain at "war prices" until April 15. This is worrying the Rock Island road, as the bulk of their present business is corn from Western Iowa, and the Burlington is their

only competitor. The result will probably be a continual warfare between these railroads.

THE annual river and harbor grab looms up bigger than ever. The improvement of our commercial facilities is, of course, of prime importance; but it is sad to reflect that it takes two dollars in the shape of bribes to creeks and bayous to obtain one dollar's worth of real and needed improvements.

ATTENTION is directed to the advertisement of the Morton Mfg. Company of Romeo, Mich., which will be found in this issue. They build a horse power especially for elevators, which is cheap and effective. It is provided with a governor which makes the motion steady. They will send circulars and price lists on application.

A RURAL Missouri paper scores Mr. Francis, the Mayor of St. Louis, because of his connection with the Merchants' Exchange, and intimates that the farmers of Missouri are dunces if they allow him to be nominated and elected Governor of Missouri, after he has helped to "rob" the farmer, etc., etc. Strange to say, everybody has hitherto regarded Mr. Francis as an honorable man, with an unimpeachable business record. It is surprising what discoveries the organs of the farmers sometimes make.

THE PAIGE MFG. Co. of Painesville, O., has brought suit in the United States District Court at St. Paul, against Morrissey Bros., of Crookston, Minn., to enjoin them from using an improvement on horse powers patented by Geo. W. Crane, agent for the Paige Company in Minneapolis. The plaintiffs also ask that the defendants be compelled to account for, and pay over all the profits which they have derived from the sale or use of said powers. The device is largely used for driving grain elevators.

THE London Chamber of Commerce has been considering a new form of danger which it is thought would threaten Great Britain in case of war, namely, the dependence of the people of that country upon external supplies of food. It is asserted that from its own resources England would not have breadstuffs enough to hold out two months. It is therefore proposed to expend annually at least \$25,000,000 to establish a national granary with a supply of 24,000,000 quarters of wheat. The matter is to be presented to Parliament.

IT is a curious fact that the people of Europe cannot, or will not, be induced to use corn as an article of food. They will eat almost anything else, but consider this grain as suitable only for cattle. The luxuries of corn bread, mush, corn-starch puddings and canned corn are unknown to them. Our consul at Rouen, Mr. Williams, suggests that a few tons of the meal and starch carefully prepared, be distributed gratuitously to the visitors of the agricultural assemblages so common in France and the people instructed in its use.

THE NEBRASKA ELEVATOR CONSOLIDATION.

THE Omaha *Bee* devotes nearly a column of editorial to what it terms "A Lawless Combination," having reference to the incorporation of the Nebraska Elevator and Grain Company. The *Bee* believes that corporation to be "lawless" because the last legislature of the state passed an act prohibiting pooling or combination to traffic in farm products, and punishing by fine or imprisonment any combination to fix prices on farm products, or to divide the profits of the business. It thinks it makes out a strong case and imagines that the position of the company is weak.

But the new company is not a pool or an association. It is a stock company with a capital stock of \$5,000,000. The parties comprising the company have the same right to incorporate their business that other citizens have. The fact that

they will do business in more than a hundred places is no more an infraction of the rights of others than is the fact that single grain firms operate a dozen houses. The individual owners have ceased to be such, and their property is now the property of the corporation.

Most likely combinations of this kind are not the best things in the world; but men do not go into them until they are driven to do so by the exigencies of business. The Nebraska Elevator and Grain Co. hope, by united action, to make better terms with the railroads and forward their grain to better advantage. They do not intend to "take it out of the farmer" by reducing the price of his grain; they simply intend to work as a unit, and there is as yet no law against doing that.

STATISTICIAN DODGE'S FIGURES.

Statistician Dodge of the Agricultural Department has prepared a comparison of stocks of wheat remaining in farmers' hands, which is to be published in the forthcoming report. It is claimed at the department that the brief synopsis sent out March 10 has been misquoted and misunderstood. For this reason a full statement has been prepared which is intended to be a satisfactory exposition of the wheat situation to the commercial public. It also seems framed as a reply to criticisms made by Board of Trade people in Chicago. The full text of Statistician Dodge's report is as follows: "The remainder of the crop of wheat in the hands of farmers is 28.9 per cent. of its volume, against 26.7 per cent. a year ago. The proportion was exceeded in 1886, 1885 and 1881, and is nearly the same as in 1884 and 1883. In fact, only in 1887 and 1882 was the proportion lower. In round numbers the quantity is 132,000,000 bushels, against 122,000,000 bushels last year. In actual quantity the remainder from the failure crop of 1881 was only 34,000,000 bushels. The crop was about the same as that of 1886, but March 1 the quantity exported (wheat and flour) was 11,000,000 bushels less than at the same date from the product of 1886. The following statement shows the remainder of the previous crop on farms since 1880:

	Crop of previous years.	In farmers' hands March 1.	Per cent.
1888.....	456,329,000	132,000,000	28.9
1887.....	457,218,000	122,000,000	26.7
1886.....	357,112,000	107,000,000	30.1
1885.....	512,763,000	169,000,000	33.1
1884.....	421,086,160	119,000,000	28.4
1883.....	504,185,470	143,000,000	28.5
1882.....	382,280,090	98,000,000	25.5
1881.....	498,549,868	145,000,000	29.1

"The crop was an average one in yield, and the stock remaining in farmers' hands is also near an average.

"The returns are full, and those of the state agent system, while not in every state identical with those from the direct correspondents of the department, are in close agreement with them.

"The crop year and the fiscal and export year, beginning at the same date—July 1—the movement, on the basis of actual and recognized consumption, should be calculated from that date. It shows the unaccounted for wheat March 1 as 10,000,000 bushels, as follows:

	Bushels.	Bushels.
Visible supply July 1, 1887.....		34,000,000
Crop 1887.....		456,000,000
Consumption July 1 to Feb. 29, 1888.....	187,000,000	
Seed for winter wheat.....	34,000,000	
Exported July 1 to Feb. 29, 1888.....	89,000,000	
Visible supply March 1, 1888.....	38,000,000	
In farmers' hands March 1, 1888.....	132,000,000	
Totals.....	480,000,000	490,000,000

"There is still an uncounted quantity, which is an element of uncertainty difficult to eliminate. It is the wheat not consumed, not in visible stock nor reported in the hands of farmers, but in country elevators, in mills both as wheat and flour, and as flour in commercial distribution to actual consumers. This is less at the end of the crop year, when the drain of distribution, foreign and domestic, has been continuous for twelve months. It is greater at other periods of the crop year, especially after the active distribution of the first six months. Thus a similar comparison of supply and movement from March 1 of last year to the present time shows a surplus of 10,000,000 bushels on the side of distribution, as follows:

	Bushels.	Bushels.
Visible supply March 1, 1887.....	57,000,000	
In farmers' hands March 1, 1887.....	122,000,000	
Crop of 1887.....	456,000,000	
Consumption, 12 months.....	280,000,000	
Seed, spring and fall.....	52,000,000	
Exported March 1, 1887, to March 1, 1888.....	143,000,000	
Visible supply March 1, 1888.....	38,000,000	
In farmers' hands March 1, 1888.....	132,000,000	
Totals.....	645,000,000	635,000,000

"An absolute count of all these fragments of annual distribution between the bin of the producer and the mouth of the consumer is impossible. If calculated by months instead of years, the elements of difficulty increase from the unequal distribution of the several months. Therefore, the demonstration above, with an apparent

discrepancy in either case of 1 or 2 per cent., is close enough to establish the consistency and reliability of these annual returns; and a nearer result would inevitably be assumed to be not carefully revised and consolidated returns, but deliberately dovetailed assumptions of a few known and prominent factors of distribution. The last two years have been seasons of average yield and area, the last with greater area and very slightly less yield per acre than the former, with no material difference in the product. The assumption by many that the crop of 1886 was essentially larger than that of 1887 is a palpable error. There was less in certain states and more in others; and there was in some quarters, notably in Dakota, a surplus from former years not counted in the proportion of the crop of 1886 remaining on hand March 1 last, which slightly enlarged the distribution.

"The record of full years for a period shows fairly the consistency of our returns. The annual estimates, made before the export and domestic distribution had occurred, thus compare in detail and in aggregate:

	Production—Bushels.	For food. Bushels.
1880.....	468,549,868	242,086,655
1881.....	383,280,090	235,249,812
1882.....	504,185,470	255,500,000
1883.....	421,086,160	259,500,000
1884.....	512,763,900	265,000,000
1885.....	357,112,000	271,000,000
1886.....	457,218,000	277,000,000
Total.....	3,134,195,488	1,805,336,467
Average.....	447,742,213	257,905,210

	For seed—Bushels.	Exportation—Bushels.	Total distribution—Bushels.
1880.....	56,563,530	186,321,514	484,971,699
1881.....	55,215,573	121,892,389	412,357,774
1882.....	52,770,312	147,811,316	456,081,628
1883.....	54,683,389	111,534,182	425,717,571
1884.....	55,266,239	132,570,367	452,836,606
1885.....	51,474,906	94,565,794	417,040,700
1886.....	51,474,906	153,804,970	482,333,628
Total.....	377,502,607	948,500,532	3,131,339,606
Average.....	53,928,944	135,500,076	447,334,229

"Thus, in seven years, since 1879, the average of annual estimates is 447,742,213 bushels, and the distribution 447,334,229 bushels. This is marvelous closeness, especially in view of the fluctuating export, which cannot be measured when the estimate is made, ranging from 186,321,514 to 94,565,794 bushels. Thus three-tenths of our wheat has been exported in the last seven years; and the proportion exported of the last crop (one-third) is only exceeded by the unprecedented volume and percentage of the crop of 1880."

THE AMENDED COMMISSION RULE.

The following is the complete text of the Commission Rule of the Chicago Board of Trade as it now stands with the amendments made March 15:

The following rates of commission and brokerage, being just and reasonable, are hereby established as the minimum charges which shall be made for the transaction of the business hereinafter specified, by member of this association.

For receiving, selling and accounting for the following kinds of property:

For selling carload lots of wheat, rye and barley in store, free on board cars or vessels, on track, delivered, or to be shipped from any other point, 1c. per bushel.

For selling carload lots of corn in store, $\frac{1}{2}$ c. per bushel.

For selling corn otherwise than in store, $\frac{1}{2}$ c. per bushel.

For selling carload lots of oats, $\frac{1}{2}$ c. per bushel.

For selling canalboat loads of grain in store or afloat, or free on board vessels, $\frac{1}{2}$ c. per bushel.

For selling flaxseed in bulk, 1 per cent.

For selling flaxseed in bags, $1\frac{1}{2}$ per cent.

For selling clover seed in carload lots, 1 per cent.

For selling clover seed in less than carload lots, $1\frac{1}{2}$ per cent.

For selling timothy seed, $1\frac{1}{2}$ per cent.

For selling all other seeds in bulk, $1\frac{1}{2}$ per cent.

For selling dressed hogs in carload lots, $1\frac{1}{2}$ per cent.

For selling dressed hogs in less than carload lots, not less than $1\frac{1}{2}$ per cent., nor to exceed $2\frac{1}{2}$ per cent.

For selling bran, shorts and millstuffs, \$3.50 per car.

For selling corn meal and mixed feed, \$5.00 per car.

For selling broom corn, $\frac{1}{2}$ c. per lb.

In addition to the foregoing specified rates of commission, there shall be charged the legal rate of interest on all advances, whether made on bills of lading or otherwise; also established rates of insurance upon all merchandise held in store or otherwise carried. Furthermore, there shall be charged all other legitimate expenses, such as storage, inspection, etc., which are necessarily incurred in caring for the property and guarding the interests of both consignor and consignee. Provided, that to members of the association or to firms, one of whose general partners is a member, or to corporations, one of whose executive officers is a member, one-half of the above rates of commission may be rebated, but all collateral charges as hereinbefore specified shall remain unchanged.

For the purchase or sale and for the purchase and sale of property for immediate or future delivery, whether the contract for purchase or for sale be first made, as follows:

On all kinds of grain in 1,000 and 5,000-bushel lots, or multiples thereof, \$2 per 1,000 bushels, being one-fifth of

1 cent per bushel; and in special cases, under special agreements, one-eighth of 1 cent per bushel.

On lard in 50 and 250-tierce lots, or multiples thereof, 5c. per tierce.

On mess pork in lots of 50 and 250 barrel lots or multiples thereof, 5c. per barrel.

On other meats in lots of 25,000 and 50,000 pounds, or multiples thereof, 25 cents per 1,000 pounds.

On flaxseed in carload lots, 1 per cent.

On clover seed in carload lots, 1 per cent.

On flaxseed in 5,000-bushel lots, one-half of 1 cent per bushel.

On all other seeds, $1\frac{1}{2}$ per cent.

For the purchase and shipment of grain by vessel:

On rye and barley, one-half of 1 cent per bushel.

On other grains, one-quarter of 1 cent per bushel.

For the purchase and shipment of grain by rail, one-half of 1 cent per bushel.

For the purchase and shipment of lard, mess pork, and all other meats, one-half of 1 per cent.

It is hereby provided that in cases where property is bought or sold for future delivery for account of members of this association, or for firms, one of whose general partners is a member, one-half of the foregoing minimum specified rates may be charged, and shall be the minimum rates in such cases, excepting that to resident members who personally do their own buying and selling, but who clear their contracts through other members or firms, one-twentieth of 1 cent per bushel on grain, and the same relative rate on provisions may be charged, and shall be the minimum rates of commission in such cases. Nothing in this rule shall be so construed as to prevent special agreements by which higher rates of commission may be charged in special cases.

For brokerage the minimum rates shall be:

On all kinds of grain, $12\frac{1}{2}$ c. per 1,000 bushels.

On lard, one-half of 1c. per barrel.

On mess pork, one-half of 1c. per barrel.

On other meats, $2\frac{1}{2}$ c. per 1,000 pounds.

Higher rates of brokerage may be charged by special agreement, provided that such higher rates do not exceed double the minimum rates above named. Brokerage shall not be allowed to nor received by a member who makes his own transactions, but who places his contracts with another member or with a firm, one of whose partners is a member of the association.

A member of this association shall not transact nor shall he offer to transact any business for a person who is not a member, at any rate of commission fixed for transacting business between members. A member shall not transact nor shall he offer to transact any business for any person at any smaller rate of commission than is fixed by this rule, and for the purpose of removing opportunity for the evasion of this rule, members are hereby prohibited from transacting or from offering to transact any business on a division of commissions, in consideration of or in compensation for business furnished, or to be furnished, procured or to be procured, except as provided in the foregoing section.

If a member, firm or incorporated company accused of violating this rule shall, when demanded, refuse to submit such records or memoranda in his, their, or its books, correspondence, etc., as may have reference to the specific charge or charges of which such member, firm or incorporated company shall stand accused—to a special committee of the Board of Directors of this Association, or to the Board of Directors, for their examination or investigation, such refusal shall be accepted as prima facie evidence of the guilt of such member, firm or incorporated company.

When any member of this Association shall be found guilty by its Board of Directors of violating any of the provisions or requirements of sections 3 and 4 of this rule, he shall, for the first offense, be suspended from all the privileges of the Board of Trade of the city of Chicago for not less than one year; and for the second offense he shall be expelled from the said Board of Trade.

A HINT TO CRANKS.



[The above embodies the idea of all perpetual motion machines. The bellows turns the windmill and the windmill blows the bellows. The device is not patented and its counterparts ought not to be, as they are all base imitations.]

The elevator and flour mill of the Crowder Milling Co. at Edwardsville, Ill., has been destroyed by fire. Loss \$30,000.

WATERWAYS

Grain tolls through the Welland and St. Lawrence canals are again fixed at 2 cents per ton.

The Toledo Grain Trimmers' Union has made a price of \$1.50 per thousand bushels for this season.

Grain freights by lake at Chicago have dropped a quarter of a cent or down to 2 cents on corn, a number of charters being made at this figure.

The Illinois & Michigan Canal was opened for navigation from Bridgeport to La Salle Tuesday, April 10. Boats will be allowed to draw four feet eight inches.

It is stated that the Dominion government has decided to abandon for the present, the scheme for the construction of a canal on the Canadian side at Sault Ste. Marie.

The Suez Canal was opened in 1869. It has been thirteen years in the process of construction and is not yet fully completed. It has a depth of twenty-six feet and forty hours are required for the passage of a vessel.

The Tay Canal, connecting Perth (Ont.) with the Rideau Canal, and costing nearly \$250,000, was completed last fall to the outskirts of the town. It will now be finished by building the approaches and three steel bridges at a cost of \$10,000 each.

The Citizens' Association of Chicago proposes to construct at its own expense a canal six miles long, between the Desplaines River and the south fork of the Chicago River, on condition that the government will continue the improvement down the Desplaines to the Illinois and thence to the Mississippi.

The New York Press says: "Free canals is the coming policy of the Canadian government. New York state, with a great canal connecting the fresh water seas with the ocean, lying entirely within its borders, must maintain its internal waterways at all hazards, and adopt the most liberal canal policy possible."

There is a project on foot to induce Congress to take an interest in the enlargement of the Miami & Erie Canal in Ohio, so that government vessels can pass readily from the lakes and the Mississippi. Such an improvement would open the way for an extensive trade between the Northern and Southern cities.

The Chicago Board of Trade directory have passed resolutions declaring themselves in favor of the construction of the Nicaraguan Canal, under American auspices and control, and that the bill to that end which has already passed the Senate, and is now pending in the House of Representatives, is worthy of the support and advocacy of the Illinois Representatives in Congress.

A meeting was held April 9 by the merchants on the New York Produce Exchange interested in advocating the passage of the bill appropriating \$1,000,000 for further improvements of the canals of the state in general, and the Erie Canal in particular. Last year the legislature spent \$550,000 in canal improvements. The bill is opposed by a number of the senators. The merchants are decidedly in favor of it.

At a meeting of the Chicago Board of Marine Underwriters, held Saturday afternoon, the following schedule of insurance rates on grain cargoes was decided upon, to go into effect to day and continue until further notice: Lake Michigan ports, 25 cents; Georgian Bay, 60 cents; Lake Erie, 60 cents; Lake Ontario, 85 cents; Port Huron and Detroit River, 50 cents; Ogdensburg, 90 cents; Montreal, \$1.50.

Two movements of interest to vesselmen are now on foot in Chicago. The one is the formation of a Marine Trade Council, having control of all the labor interests at that point, and the other is the organization of the steamboat men as Knights of Labor. The object is to unite the different organizations heretofore existing, to define the duties of each occupation around vessels, and to keep off encroachments on what the unions believe is their especial province.

The Canadian government is now considering the question of removing tolls on all canals, which now only contribute about \$500,000 annually to the treasury. Canada has already expended \$50,000,000 on canals, and the new scheme contemplated of building a 14-foot canal from Lake Superior to tidewater, will call for \$12,000,000 more, of which parliament will be asked to vote \$1,500,000 this session. The total appropriation on account of canals now asked from parliament is \$3,127,000.

In France canal navigation is much more utilized and valued than in England, and the waterways are especially looked after by the government, which has recently undertaken a large expenditure for their further development. Germany also has an extensive canal system and is about adding two important links in the chain of water communication, a canal 163 miles long from Dortmund to Emden harbor, to cost £3,233,000, and the improvement of navigation from the Oder at Furstenberg to the Upper Spree at Berlin, a distance of 54 miles, at an estimated cost of £630,000. A canal has also been built on the

Isthmus of Corinth, four miles long, connecting the Mediterranean and the Adriatic with the Archipelago and Black Sea. Russia has recently completed a maritime canal between Cronstadt and St. Petersburg, 18 miles long and 22 feet deep, over a floor 276 feet in width.

The canals committee of the Albany Legislature brought in two reports upon the bill, appropriating \$1,000,000 for canal improvement. The majority report signed by six of the eleven members of the committee, cut down the appropriation to \$530,000, divided as follows: Erie Canal, \$300,000; Champlain Canal, \$105,000; Oswego Canal, \$60,000; Black River Canal, \$20,000; Havana Basin, \$20,000; and Cayuga and Seneca Canal, \$25,000. The minority report recommended the passage of the bill as originally drawn.

The report of Col. Plumb on the Hennepin Canal project, has been presented to the House Committee on Railways and Canals, and adopted by them. It gives an elaborate presentation of all the physical facts connected with the proposed improvement, such as the extent, population and resources of the Mississippi Valley, and the immense system of natural waterways that traverse it; the lake system, extending for 1,800 miles along the Northern part of the United States, and points out the fact that the Illinois River is a natural canal from its mouth to La Salle, having a fall of only twenty-seven feet nine inches in that entire distance. It is shown that it is only twenty-nine miles through the obstruction or ridge that stands in the way of the waters of the lakes flowing as they once did down the valley of the Desplaines River and the Illinois River. The cost of making a channel through the obstruction is said to be greatly reduced by using the Desplaines River to within six miles of Chicago. Two schemes are proposed for carrying out the improvements. One termed the propeller scheme, contemplates a channel of sufficient depth to take lake craft through from the lakes to the Gulf of Mexico during certain portions of the year, and would require a cutting through the obstruction of a channel 200 feet in width and sixteen feet deep, or 160 feet wide by twenty-two feet deep, so as to secure a flow of water at the rate of two miles an hour. The other plan is called the river steamboat scheme, and proposes to improve the Illinois River up to Lake Joliet, and so up the Desplaines River with the canal of the same capacity, the locks being 350x75 feet, with seven feet of water. The object is to make it practicable to carry river steamboats of 1,000 tons burden through from New Orleans to Chicago. The report also refers to the construction of such a canal as important from a military or naval standpoint, and says that in a single military contest with any other nation, the cost of the canal would be more than defrayed by the advantage to our armies arising from it.

A PREVENTIVE FOR CHINCH BUGS.

N. E. Allen of Beaver Dam, Wis., in the St. Paul Pioneer Press, gives some excellent suggestions to farmers how to free themselves from these vandals of the field. He has studied the nature and habits of the insect, and has arrived at the following conclusions. First, that they are a bug and not a beetle; the latter dig, the former crawl, and find their way between the lumps to the tender roots of the plant, where the female lays her eggs. Second, after the eggs are laid the old bugs die. Third, the bugs are suckers and not chewers, that is, they draw their food through a bill like a fly or mosquito, thrusting it through the tender bark of roots and sucking the juice or sap, thus destroying the grain or greatly weakening its growth. The fourth characteristic is, that there are two broods in a year. If the second brood develop when the grain is ripe and they can find no more food in it, they go to the cornfield and find their sustenance there. Usually in about ten days after the grain is harvested, the bugs that have grown in the grain will develop and have wings and will breed again and lay eggs in corn if they can find it, if not, in tame or Hungarian grass; these become the bugs that go into winter quarters and live through the winter in a dormant state until the warm weather of spring.

Now for the remedies. Mr. Allen says as the bug cannot dig, the first thing is to have the ground made as smooth as possible after the grain has been sown at a uniform depth. To do this have a stick or plank seven or eight feet long, attach a good team, and within an hour after the cultivator has gone over the land, before the soil has had time to harden, get on the stick and go over it, flattening and smoothing it thoroughly. At the time of seeding also, sow clover seed mixed with plaster and salt, except on prairie land, when salt without the plaster will serve every purpose, besides making the grain fill well. The salt acts as a solvent to dissolve the lumps and to fill up the cracks, and in Mr. Allen's opinion enters into the sap of the grain rendering it poisonous or distasteful to the bug. The clover makes a thick mat and they will not live where it is. They will not eat it, nor any plants of the same family. Mr. Allen mentions an instance in his own experience, where such a course of treatment resulted in saving a large crop of wheat, when in every other field in the vicinity the crop was an entire failure owing to the immense quantities of the bugs. The field contained a little over 52 acres and the yield was 33.4 bushels per acre, of such heavy wheat that the machines could hardly cut it.

The experiment is certainly worth a trial, and as Mr. Allen says he has no patent on his plan, and as salt is cheap, we see no reason why the farmers should not try to save themselves from financial loss and worry of spirit, consequent on the ravages of this miserable little pest.

THE LAW.

Bill of Lading.

The indorsement of a bill of lading is but an assignment of the shipper's obligation and of the property called for in the bill. It involves no promise to do anything toward forwarding the property, nor any duty for the performance of which the carrier had therein agreed. —*Maybee vs. Tregent, Supreme Court of Michigan.*

Fraud—Warehouse Receipt.

The law does not allow a purchaser to shut his eyes in the face of well grounded suspicion. But fraud in a sale must be established by legitimate inferences and cannot be inferred from the mere fact that the seller is embarrassed. A bank taking a warehouse receipt in pledge from a trader whom it knows to be in embarrassed circumstances is not therefore bound to inquire as to the motives of the pledgor in making the pledge, nor to the disposition he intends to make of his property. —*Gaff et al. vs. Fourth National Bank, St. Louis Court of Appeals.*

Marine Insurance.

A policy of marine insurance which contains a stipulation that in case of loss or misfortune the insurer would contribute ratably to expenses incurred by the assured or their agents in and about the recovery of the insured cargo, was issued by a corporation of the state of Connecticut, also doing business in the state of Ohio. The cargo was sunk in waters of the state of Michigan, and labor was expended in efforts to recover it. Held, that the breach of such stipulation on the part of the insurer constitutes a cause of action against the company cognizable by the laws of this state. —*Hendy et al. vs. Alina Insurance Company, Supreme Court of Ohio.*

Bohemian Oats Contracts Invalid.

The Supreme Court of Michigan lately rendered a decision of interest to farmers in the case of McNamara vs. Gaggett. It appeared that in 1885 Gaggett purchased Bohemian oats, and gave his note to one Griffen, who sold the note to McNamara. Gaggett refused to pay the note, claiming that there was not adequate consideration. Judgment went against him in the trial court, but its decision was reversed by the Supreme Court, which ruled that the contract for which the note was given was fraudulent, and, therefore, not binding on the defendant. The terms of the contract, the court said, were at war with public policy, and were, therefore, null and void. It is said that this decision will make void notes for about \$50,000, given upon Bohemian oats contracts in the state.

Carrier—Bill of Lading.

1. A bill of lading is only presumed to contain the contract of the carrier and shipper in relation to the transportation of the goods at the time of the shipment, and has no connection with a prior broken contract to furnish transportation.

2. Where the carrier agreed to have cars at a certain place and have them there, and two days afterward the goods were shipped and a bill of lading given such bill of lading has no connection with the prior broken contract.

3. Where the carrier knows the existence of certain facts and that certain damages will result from his failure to furnish cars as agreed, such damages as actually occur from such known circumstances may be given by the jury. —*Hamilton vs. Western R. Co. S. C. N. C. June 3, 1887.*

Grain Insurance.

The defendant insured grain in thirty-three elevators on condition that it should be liable only for such proportion of the loss as the amount of the insurance bore to the whole value of the insured property described, and that it should not be liable to contribute more than one-tenth of the amount of the insurance on the property described. Also, that the insured should be entitled to recover no greater proportion of the loss from defendant than the amount insured by it bore to the whole sum insured on said property, whether such insurance should be by general or specific policies, and without reference to the solvency or liability of the other insurers. All the policies had schedules annexed setting forth the elevators and the storage capacity allowed to each. Held, that there was other insurance on the elevators insured by the defendant to the amount which was to the whole sum insured by such other policies, as the value of the grain in the thirty-three elevators bore to the value of the grain in all the elevators. Also, that this amount was the proportion in which the more general policies were liable to contribute with defendant where such contribution would fully indemnify the insured. —*Barnes & McGill and David Dows & Co. vs. Hartford Fire Insurance Company, United States Circuit Court, District of Minnesota.*

The Russian wheat production, according to the official estimate, including Poland and Finland, is 50,683,069 bushels above the average of ten years.

THE EXCHANGES.

Tickets of membership in the New York Produce Exchange have been selling at \$1,550.

Memberships of the New York Stock Exchange are \$19,000, and of the Chicago Board of Trade \$1,700.

The merchants on the New York Produce Exchange have adopted resolutions protesting against a bill before the Albany legislature, which gives the legislature the right to fix elevator charges.

The Mankato (Minn.) Board of Trade has adopted a resolution protesting against placing flaxseed and linseed oil on the free list, as is done in the Mills' bill, and requesting the members of Congress from that state to vote against it.

At the regular monthly meeting for April of the Baltimore Corn and Flour Exchange, the following were elected as members: C. B. Loney, R. W. Graves, O. W. Cooke and George B. Mudge. The following were elected flour inspectors: Wm. H. Manler, Jonas Winter, Jr., and W. P. Newcomer.

The Toronto Board of Trade having learned that a quantity of Manitoba and other barley, badly mixed with foreign grains and seeds, is being offered throughout Ontario for seed, calls the attention of buyers to the fact, and urges the farmers to see that the good reputation Ontario enjoys for growing fine barley, is not affected by the introduction of prairie and other seeds into their land which it will take years to get rid of.

The organization known as the "Chamber of Commerce" is the direct outgrowth of the grain business of Minneapolis, and although of comparatively recent birth, its growth has been commensurate with that of the interest it represents as well as of all the material interests of this phenomenally rapid city. As early as 1876 Col. G. D. Rodgers, now engaged in publishing the *Daily Market Record*, embarked in business as a grain commission merchant. His efforts did not result very satisfactorily, and he abandoned the attempt for the time. It was not until 1879 or 1880 that this branch of the business secured its first real foothold. It gained strength fast, and in the spring of 1881 Mr. Rodgers conceived the idea of organizing a Chamber of Commerce. The idea was favorably received; but the opinion was pretty general that the time was hardly ripe for it yet. In the fall of that year, however, a meeting of those interested was held, and the movement given definite shape. An organization was soon effected and started out with about one hundred members. The price of membership was \$25. In the course of a few months it was decided to advance the price to \$100, and limit the membership to six hundred. The announcement brought a rush of applicants and the limit was nearly reached. The price was subsequently advanced to \$500, but no original memberships were ever issued at a greater rate than \$25. The membership first gained included many who had no direct interest in the business, and enough have always been found willing to sell to supply the legitimate demands due to the actual growth of business. Two years after organization the Chamber decided to have a building for its own occupancy. This was completed in the spring of 1884 and is one of the most imposing structures in the city. Two years later the demands for office room exceeded its capacity, and Mr. W. H. Eustis, a local capitalist, erected the Corn Exchange building just across the street. This is fully occupied and the prospects are good for still another elegant office building in the same locality to supply the ever increasing wants of the grain men. From the first the business on 'Change has increased rapidly in volume, but received its greatest impetus from the retirement of the Millers' Association two years ago. There is in constant progress a concentration of the grain business at this point, the ranks of the grain men receiving accessions from Duluth, Milwaukee, Chicago, and all Eastern markets, as well as from the country west where the smaller interests, representing from one to half a dozen elevators, are gradually crystallizing into large lines which feel the necessity for representation at the grain center. In the face of these facts the statement has been frequently made that the grain business of Minneapolis is declining, and its supremacy in this respect would soon pass away. It is only a few days since a prominent Chicago man came up here and bought fifty cars of wheat to supply Eastern customers whom he had previously supplied from his own market, and he will, doubtless, soon transfer his base of operations to this point.—*Milling Engineer*.

CORN IN ITALY.

The cultivation of corn in Italy has become an important industry, and while it is hard to associate such a matter-of-fact pursuit with the soft air, tropical skies and constitutional tiredness of the inhabitants of that languorous clime, it may be that the unwonted exercise is just what is needed to develop the latent energies of the children of Italy, and make of them a more useful nation. The crop of last year is reported as about 89.45 per cent. of the average crop. There seems to be no reason why this cereal should not do well in Italy, and the peasant of that country be instructed how to use it as an article of food.

ELEVATOR CHARGES AND THE GRAIN TRADE.

[Speech of Wm. E. Cleary at Buffalo.]

I was sent here by the Canal Boatmen's Association, of which body I have the honor to be president, to say a few words in favor of Bill No. 36, introduced in the Assembly by Mr. Sheldon. The bill allows five eighths of one cent a bushel for weighing, elevating and delivering. On taking an ordinary cargo of 8,000 bushels, that reduction would amount to \$50. That is in making a direct transfer. This, we think, is a fair price, taking all things into consideration. The 8,000-bushel estimate is made on wheat. The same boat will carry about 8,600 bushels of corn, which would pay about \$53.50, or if a cargo of oats, the boat would carry 15,000 bushels, making about \$93.75. We think that is fair pay for the service. The elevators have several other sources of revenue, such as profit on the trimming, blowing and screening, storage, etc., with which the bill before you does not interfere, so that on the whole we believe our bill to be a fair and reasonable measure. If we are to have any legislation, the most conservative men among you will agree that we are moderate in our demands. The time consumed in the transfer of a cargo of 8,000 bushels is two or three hours. We must consider in this connection that it takes two or three days to discharge the same boat loaded with coal or lumber. On general principles fixed charges operate favorably on transportation routes. It makes the comparison between ours and other routes favorable to us, and thus increases shipments. Elevator owners are like other people. They collect a high rate if they are allowed to. Now, since the trust is formed, they can reduce the rates as they are lessening their expenses by combining their business and reducing their pay-rolls. I was told this week by a man who had been employed as a clerk or superintendent in a big storage warehouse concern in New York, that he had been discharged and many others, and that those who had gone into this combination expected to make \$150,000 by the saving which this combination would effect. I have understood that men pretending to represent labor organizations are opposed to this measure. Nothing could be more foolish than such opposition. Everything that attracts commerce benefits directly the workman. The more bushels of grain that are carried, the more men there are wanted to handle it. Let us cut off all fancy charges; let us attract business, instead of repelling. A man having grain in Chicago will send it to the seaboard by the cheapest route. The New York Produce Exchange has been attacking the railroads for discriminating against New York, but if they will properly protect the canals, canal grain, from all overcharges, the canal will protect them against all railroad discriminations. I am almost convinced that the elevator owners are beginning to see the necessity of this reduction themselves. Now the rates of wharfage are established in the city of New York by law, and the amount the law allows is just the amount collected. The reason it was established by law was no doubt to prevent combinations being made that would injure the trade.

The question was asked of the gentleman who had just taken his seat, why it was that there was only 30 cents charged to Boston and other ports, and 93 to New York. I think that the real reason of that probably is to be found in the high port charges. I know that the foreign salt dealers say they would prefer to send salt to Philadelphia at a price fifty cents or a dollar a ton less than to New York, because the wharfage and general port charges are so high in the latter city. I only mention this as an argument to show that the less all fixed charges are, the more popular the route will be, and the more likely are large quantities to go through by that route. Of course, we in representing the boatmen on this question, looked at it just as some of you gentlemen assume we did. That is to say, we believed that unless the route is popularized by low rates, low fixed charges, that the grain, the overplus of grain, would go off in other directions. It is just exactly like a dam; if the channel is kept perfectly clear, the water will run in one direction; if it be filled with mud or other matter, it overflows and passes off in other directions. We are desirous to keep the grain running in the direction of the Erie Canal, so that we may carry it, and at the same time we are arguing New York's case, both the city and the State, because it is to the interest of everybody in the State of New York, and particularly in the city of New York, to keep the grain coming in this direction.

Now, you might say that the men have large properties there, the storehouse owners, elevator owners, would have a greater interest in that matter than we could have, because of the money they have invested in their elevators and storehouses. While that may be true, here is a picture which I hold in my hand of an elevator in Newport News. There are gentlemen in New York doing business at the Produce Exchange, the principal grain handlers there, elevator owners, Annan & Co., who own that elevator at Newport News. The certificates of the grain at their elevator are handled in the Produce Exchange in New York just the same as if it were stored in New York. Now, there is no reason why these gentlemen would not just as soon handle that grain at Newport News as in New York, if there is any more money to be made by so doing. But it is not so with the canal boatmen. They cannot run to Newport News. Their interests are identical with the state's interests. These others are mercantile interests that will change from one place to another as the owner of the capital may see fit. That puts me in mind of an argument which Alexander Orr, of David Dows & Co., at one time made on the free question. The gist of the argument was that a man in Chicago telegraphs to a New York capitalist asking him

if he will advance so many thousand dollars upon a million bushels of corn for shipment to Baltimore. He answers: "Yes; but why to Baltimore instead of New York?" The reply came back: "The charge on board vessel in Baltimore is one eighth or one quarter of a cent less than in New York." Mr. Orr, who is a very eloquent gentleman, and is now an elevator owner, gave this illustration to show that as the previous speaker had said, a fraction of a cent a bushel would divert grain from one route to another, and, therefore, that the fraction of a cent being in favor of the other port, brought to it that million or two million bushels of grain. I have here an article taken from the New York *World* about the time that elevator was built, which goes over the case pretty thoroughly. The New York *World* was a pretty reliable paper at that time, I guess. That article speaks of the influence of that enterprise upon commerce as likely to be very great, that the elevator has a capacity of 1,600,000 bushels, and that it is provided with all the modern improvements. It is now ready for business. The article says the meaning of this is significant, and its influence upon the Atlantic sea-board grain exporting cities cannot fail to be an appreciable one, for the enterprise is distinctly in the interest of New York. The fact of the matter is, however, that it is in the interest of New York capitalists, but not in the interest of New York as an industrial point. With the exception of Port Royal, Newport News is the best port along the Atlantic sea coast, the largest steam vessels come to its docks; no pilot is necessary in entering the harbor, a saving of \$250 in fees thus being effected as against this port. The office of the enterprise is in New York City, and the business will be done there, and not in Baltimore or Richmond of Newport News, for New York capitalists own the bulk of the stock.

Annan & Co., who own and run the grain elevator in Jersey City, and the Dows and Columbia Stores in Brooklyn, are to handle the project. Consignments are to be made to New York dealers precisely as at present; certificates will be handled on the floor of the Produce Exchange where daily reports of shipments, etc., will be daily received. The character of the grain received will be substantially like that received at Baltimore. Ocean freight at Newport is as low as that of Baltimore, or even lower, and as low as that of New York. This project may result in less wheat coming to this city, but the business will be here. That is what this article says. It means, however, that the capital of the business will be there, which does not suit the men who handle the grain.

I presume you would like to know how this bill which is before us affects the charges for handling grain. The present charge is one-half cent a bushel for elevating and one-half for weighing, that is the present price. On 8,000 bushels it would make \$40 for each service, and the process for weighing is a very light matter. The weigh-master stands here and pulls the bottom of the hopper whenever the scale balances, and it drops through. All the expenses which the weighing necessitates is the use of the scale and the service of a man for two or three hours while the grain is passing through the scale. Now, after it goes through, it has to dump somewhere. If it dumped itself in its own elevator, on the dock or anywhere, you would have to get it out of the way so that you can spout it into the ship as the most reasonable and natural way of getting rid of it, and then men go down and trim it. The regular price paid to the men who do the trimming is two dollars a thousand bushels. The charge to the grain is seven dollars a thousand bushels on one kind of vessels and eight dollars a thousand bushels on all double-decked vessels. As most of the vessels which carry grain are double-decked, you might place the cost at forty dollars for the elevating, forty dollars for the weighing, and sixty-four dollars for the trimming. That is one hundred and forty-four dollars that the elevator receives for three or four hours' work for a cargo of eight thousand bushels of wheat. It is more on corn, and still more on oats, because the rate is the same, and the quantity is a great deal larger for the tonnage. But I am making the minimum, so that we say that it is one hundred and forty-four dollars for the transfer, occupying from two to three hours. Out of that they pay two or three dollars a thousand bushels to the men for trimming the grain in the vessels, which leaves them a margin of six dollars a thousand. They pay to the men who shovel up to the leg of the elevator in the canal boat when it is discharged, \$1.50 a thousand bushels. That is twelve dollars. In other words, they pay \$1.50 a thousand bushels for trimming to the leg, and \$2 a thousand bushels to the men for trimming the grain in the vessel.

Austria-Hungary had in 1887 the largest wheat crop for ten years, and but a small proportion of her surplus has so far been exported. Egypt, that in 1886-87 exported scarcely any wheat, has harvested an average crop, and will probably have a full average surplus. Roumania had a large wheat crop in 1887.

Russia is the largest competitor of the United States for the grain trade of Great Britain. The United States has for several years past raised, on an average, 436,000,000 bushels of wheat, and exported 133,000,000 bushels. The average crop of Russia for the same period has been 227,000,000 bushels, and the export 70,000,000 bushels.

The yearly average of European wheat production for a period of about ten years is about 1,172,356,052 bushels, the basis being chiefly from official figures, some of the unimportant countries being estimated or partly estimated. The production in 1885 was 63,585,478 bushels above the average, and that of 1887 was 110,278,786 bushels above average, and that of 1886 was 30,753,869 bushels under average.

Press Comment.

NOT FRIGHTENED.

Chicago Board of Trade men are disposed to make light of the movement of country grain-dealers toward resisting the raids of the "bear" element on 'Change. They do not exactly see how the rural operators are going to interfere successfully with the natural course of business, and hold up a market whose tendency is to go down. When wheat and corn show a disposition to take a drop, they generally drop. The experience of Harper and the rest of the Fidelity Bank crowd last June in trying to "bull" wheat above its normal price, might serve the country dealers as a hint of what lies before them. A little fresh blood is needed in the Chicago market, and the gentlemen from the rural regions will be heartily welcome.—*Chicago Evening Journal*.

BIG MONEY IN IT.

We call the attention of our readers to the surprising statement made in another column by a grain scooper. It shows that a tower elevator, costing \$20,000, and running at half capacity, at the present rate of handling grain imposed by the elevator ring at Buffalo, makes a net profit each season of a little more than the entire cost of its construction. The only reply that the members of the elevator ring at Buffalo make to the charges against them is that they are earning and paying only moderate dividends. The figures presented by our correspondent prove that these "moderate dividends" must be on an enormously inflated capital, and that the combination is grinding out of the boatmen of this state a profit of over 100 per cent. a year. Twenty thousand boatmen appeal to the legislature for relief, and we trust it will be speedily granted.—*Albany Evening Journal*.

FARMERS' ELEVATORS.

Much interest and activity is being manifested in the Northwest by the farmers of that region in forming stock companies among themselves for the purpose of building grain warehouses and elevators. By this means they can store their grain in these buildings, and borrow money on it if need be, instead of selling at low prices, as has been the case heretofore. The majority of the farmers are poor, and generally have to sell their crops as soon as harvested, the result being that for two or three months after harvest the large receiving points and railroads leading to them have often been blockaded with grain, which fact was only too gladly taken advantage of by the "bears" in forcing down values, which of course redounded to the injury of the farmers. Under the new plan the trouble will be avoided to a great extent, and cannot but be beneficial to the grangers.—*Millers' Review*.

THE WHEAT TRADE OF MINNEAPOLIS.

Owing to the way the crops are marketed—the bulk coming forward in the fall and early winter, causing heavy accumulations here—and the extremely low charges imposed by the elevator companies, this has been during the last few years a favorite field of operation for grain carriers. One or two of the large elevator companies do a large business in this line on their own account. This class of investors always stand ready to take any surplus not wanted for immediate consumption, which has rendered it at nearly all times an exceedingly favorable market for sellers. With the facts of the vast extent of virgin soil as yet unweeded by the plow, the unabated vigor with which railroad building is being prosecuted, and the constant improvements which millers are making in their facilities for the manufacture of flour, together with the past record and present standing of the business, the reader has the materials for forming an opinion as to the future prospects of Minneapolis as a grain market, and as to whether her fortunes in that respect are on the wane or not.—*Milling Engineer*.

HOLY SMOKE!

Do the farmers and grain growers of Missouri know that the price of every bushel of wheat, corn, oats, rye and barley raised by them is fixed by a grain pool composed of the proprietors of the thirteen elevators in St. Louis and East St. Louis?

Do the farmers and grain growers of Missouri know that they are robbed of from 5 to 15 cents a bushel on every bushel of grain shipped to the city of St. Louis by the manipulation of this grain pool?

Do the farmers and grain growers of Missouri know that the gamblers' den in the city of St. Louis, the Merchants' Exchange, is dominated and controlled by the elevator ring which controls the grain market of that city and fixes the grade of all grain going into the market?

Do the farmers and grain growers of Missouri know that fifteen years ago the present proprietors of those elevators were poor men, most of them clerks working on salaries, and that to-day they are reckoned among the solid, substantial financiers of St. Louis, and that their respective fortunes ran up into the hundreds of thousands of dollars?

Do the farmers and grain growers of Missouri know that not more than ten years ago David R. Francis, mayor of the city of St. Louis, and a prominent candidate for the democratic nomination for governor, was a clerk for the commission firm of Shryock & Rowland; that for years he has been the agent of the grain pool on the floor of the Merchants' Exchange; that he has been one of the

largest speculators (gamblers) in grain in that city; that he is always on the bear side of the market depressing the prices of grain, and never on the bull side, and that he is estimated to be worth to-day something near half a million of dollars, every cent of which has been made in speculating in farm products?

Do the farmers and grain growers of Missouri know that this same D. R. Francis, mayor of the city of St. Louis, is now gallivanting up and down the state, driving down pegs and fixing things to secure the democratic nomination?

Do the farmers and grain growers of Missouri who belong to the Farmers' Alliance, the grange and the agricultural wheel, know that unless they look to their primary meeting and county conventions, the political wire pullers will succeed in sending delegates to nominate this tool and representative of the grain gamblers' ring?—*Vernon County Press, Nevada, Mo.*

COMMENCE AT THE RIGHT END.

It begins to look as though the people had no representatives at Albany. Elevator and wharfage charges ought to have been restricted before the canals were made free. But to expend millions of dollars on canal improvements, and permit the excessive terminal charges to be continued, is the biggest swindle ever perpetrated on a civilized people. The Albany *Argus*, *Canal Advocate*, and some Buffalo papers do not speak the truth when they say that the majority of the boatmen want the canals improved first and would be satisfied with a reduction of terminal charges afterward. Only yesterday I was in a canal broker's office, where a number of prominent boat owners were discussing the land question. One captain said that it would cost \$10,000,000 to lengthen all the locks and deepen the canal to nine feet. Another captain echoed this opinion, and said it would take ten years to complete the work. Another said all this would not reduce the cost of transportation over one cent a bushel, and all agreed that he was about right. Elevator and wharfage charges can be reduced 2½ cents a bushel on grain, and give our commerce immediate relief, without costing the people anything.—*M. De Puy in Albany Evening Journal*.

CHICAGO CORN INSPECTION.

Receiving houses are not very well pleased with the rigid corn inspection here, and charge that it is driving away a large amount of business. As an instance, one house cites the case of one shipper who formerly sent all his grain to this market, and usually sold futures against it some time before it was shipped. Last week he shipped 50,000 bushels of corn straight through to the seaboard. If 50 per cent. of it would have graded No. 2, under our rules, he would not only have shipped that corn here, but would have had futures sold against it here long ago. As it was he could not be sure that but a very small proportion of it would be of contract grade, and this market lost not only the option business but the handling of the actual grain. That same shipper last year sent nearly a million bushels of corn through instead of to Chicago and for the same reason, and that is only one instance. The inspection department say the inspection must be rigid in order to protect the buyer of futures here who expects and wants to have the corn delivered to him. As a matter of fact, all the trading in futures done here is on a grade which comprises a very inconsiderable portion of the actual grain handled. What the receivers want is to have the speculative and actual cash business done on the same grade, and then the cribber would be able to sell his corn here in advance, with some assurance that the grain he holds would fill the contract when he was ready to ship it. No especial fault is found with the inspection department, as it follows the rules laid down by the warehouse commissioners. The complaint is against these rules, and it is probable that some effort will be made to have them modified.—*Chicago Daily Business*.

TOO MANY FARMERS.

And yet, in a nation whose industries are thus liable to run into an enormous magnitude of development, it is necessary to keep a sharp lookout that, in no case, production be allowed to run into relative over-supply with consequent disastrous reaction. The present condition of Western agriculture affords a very emphatic illustration of the necessity for such precaution. Facts seem to indicate that the rapid development of our cereal resources has brought us to the verge of a change in the distribution of our industries little short of revolutionary. The census returns show that, of the total population actively engaged in agriculture, trades, transportation, manufactures, mining and mechanical employments, no less than 57 per cent. is devoted to agriculture. This ratio has been maintained, with but slight variations for several decades, and it was the proportion existing in 1880. As frequently indicated in our columns during late years, we could not with our vast current increase of population, continue to augment our grain crops in the same ratio as formerly without reaching a condition of excessive supply. The exceptionally low and unprofitable prices of grain for the last two years is clear evidence that we have about reached that point. And yet, during these two years of low prices, the combined crops of wheat, corn and oats, have been almost exactly the same as those of the two years 1879 and 1880. Thus with some 12,000,000 more home consumers than eight years ago, and no greater product of cereals than then, we have a depression in the price of grain so entirely abnormal that it seems impossible that anything short of an important contraction of the crops can effect a wholesome readjust-

ment. These facts seem to warrant the conclusion that the ranks of farming are now full to repletion, and that from this time forward, it will be impossible to contribute to this industry anything like the same proportion of our rapidly augmenting increment of new population that we have done regularly for the last forty or fifty years.—*N. Y. Commercial Bulletin*.

THE LAKES AND GULF WATER-WAY.

The news from Washington is to the effect that "an order has been inserted in the rivers and harbors bill for a survey of the Illinois and Desplaines rivers, with a view to finally getting a big water-way from the lakes to the Mississippi River"; but that the Rivers and Harbors Committee would not put into that bill anything about a canal between these rivers and the lakes. This action is no doubt in view of the policy which that committee seems of late to have adopted, not to entertain any projects for the construction by the government of canals, but rather to confine its action strictly to rivers and harbors. The order for a survey of the Illinois and Desplaines rivers with a view to their becoming, with proper improvements, a part of a great water-way between the lakes and the Mississippi is no doubt inserted upon the strength of the assurances that Chicago will make the connecting channels, and undoubtedly means that only upon that condition will the general government take a part in the work. Those who have studied the situation most carefully have all the time insisted that if we are to have the water-way at any time in the near future, it must be by inducing Chicago to dig the channel at her own expense. The position taken by the Rivers and Harbors Committee is not, therefore, so unfavorable to the project as would at first appear, for if it is true that the success of the scheme depends upon Chicago doing this part of the work, the quicker that fact is realized by all concerned the better. It gives to Chicago a commanding position, for if she is to construct the channel her interests must be consulted. It is fortunate that her interests in a big water-way are identical with those of the river people. In this view of the case it ought not to be difficult for Chicago to get from the next Legislature the legislation she desires on this subject.—*Inter Ocean*.

THE CORNER RULE.

It is well known that the rules complained of were passed a few years ago in the hope of preventing the recurrence of the corner excitements, which had proved so disastrous to many of the members, and caused great loss to outside parties for whose account they had sold grain and provisions for future delivery, in the expectation of being able to buy it for less before the maturity of the contract. This, which is technically known as "selling short," has long been regarded as a sure road to fortune if no obstacle in the shape of a corner lay in the path. It needs little business acumen to perceive that the carrying charges, including cost of storage, interest on the money employed, and insurance against fire, constituted a direct advantage to the short seller, amounting in the case of grain to something like 20 cents per bushel per annum previous to the recent reduction in the rates of storage. Several of the richest men on the Board have become so simply by steadily availing themselves of this fact, keeping all the time on the short side of the market in large quantities of produce, and calmly awaiting the shrinking process, which went on one month after another with just enough of variation to excite the lambs to hope for a profit in buying ahead. They have done this all the more confidently since the rules were changed for their benefit, rendering it dangerous for any man to buy a sufficient quantity to enable him to have influence in dictating the course of prices. But the natural result of this was to make speculative buyers hold off, and they have done so to the extent of rendering it difficult for the shorts to find customers, while the abstinence of buyers has helped other influences to force prices down to the lowest possible notch. With this has disappeared much of the inducement that formerly attracted grain to this city, and the receiving class is correspondingly a sufferer. It is no wonder that its members have at last resolved on entering a protest against regulations which they believe have directly injured their business and their clients, and now insist that the Board shall no longer cater to the mere gambling element of the community by legislation which discourages buying.—*Chicago Tribune*.

GRAIN STATISTICS.

S. K. Marston of Onarga, Ill., agrees with the Chicago *Tribune* that the government overestimates the wheat crop and amount in farmers' hands. He states that in Illinois, Iowa, Nebraska and Kansas there are about 800 grain firms connected with the different grain associations of the four states, of whom he asked the question, "Do you report to the Government Bureau?" and only four responded "Yes." This shows that the government does not get its information from the only class that can give it correctly. Mr. Marston, who is secretary of the Illinois Grain Merchants' Association, has made up his reports from information collected personally from the grain merchants, and his estimate for March of the corn crop, as compared with that of the government, shows that the estimate of the latter for the four states mentioned, was 101,408,000 bushels of corn too high. In the estimates for corn and wheat in farmers' hands on March 1, 1888, the government estimates, over grain men's estimates in the four states, was 55,507,000 corn and 9,530,000 wheat.

THE MONTREAL ELEVATING COMPANY.

A writer in the Ottawa (Can.) *Free Press*, claims that the harbor commissioners of Montreal are personally interested in the above mentioned company, and will allow no rival organization to exist. Another elevator company was formed, and carried on business for six years at that port, but was finally driven out by unjust treatment at the hands of the commissioners. The writer also charges that the commissioners neglected to collect from the Montreal Elevating Company the full steamboat tonnage dues, accrued under the legal tariff for steamboats, which dues amount to about \$20,000. The commissioners are now urging the government to assume the channel debt, and he insists that before parliament pays out one dollar toward this debt, the commissioners be required to collect from the Montreal Elevating Company the full sum in arrears for these steamboat tonnage dues, and to restore to the rival elevating company all its rights in the port, so unfairly taken from it.

AGRICULTURE IN THE SOUTH.

Agricultural growth in the South during the past few years has been very remarkable. From a corn production in 1870 of 249,000,000 bushels, it has increased in 1887 to 492,600,000, a gain of over 97 per cent., while in the rest of the country the gain was only 88 per cent. In wheat the South's increase was 18,542,000 bushels, or 54 per cent. against 62 per cent. for the rest of the country. In oats the South increased from 31,970,000 bushels in 1870, to 81,500,000 in 1887 or 155 per cent., against an increase of 130 per cent. for the remainder of the country.

CORN IN DAKOTA.

It is interesting to observe the gradual extension northward of the corn belt of the United States. Forty years ago no corn was raised in the state of Ohio to any extent, except a flint variety, that being the only kind that was certain to mature. As late as 1854 it was thought to be almost an impossibility to raise corn in Iowa, and what is true of these states is now true of Dakota. Experience has taught the farmers that corn, and that of a good variety, can be profitably grown in the northern portions of that territory four years out of five, if acclimated seed be planted and thorough cultivation be given. The farmers of Dakota are making preparations to plant the largest crop of corn this season that has ever been grown in the territory, and a very large part of the crop will be threshed. A careful estimate of the expense of threshing corn has proved its advantage in many ways, and this method is rapidly becoming popular.

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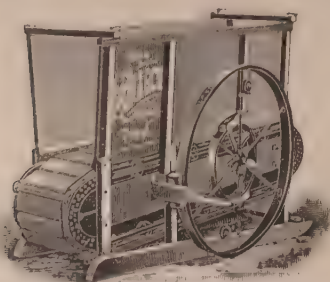
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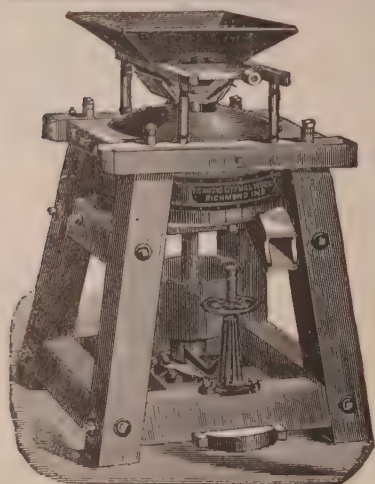
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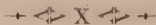
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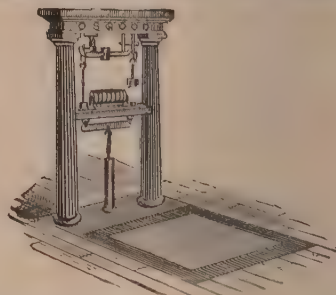
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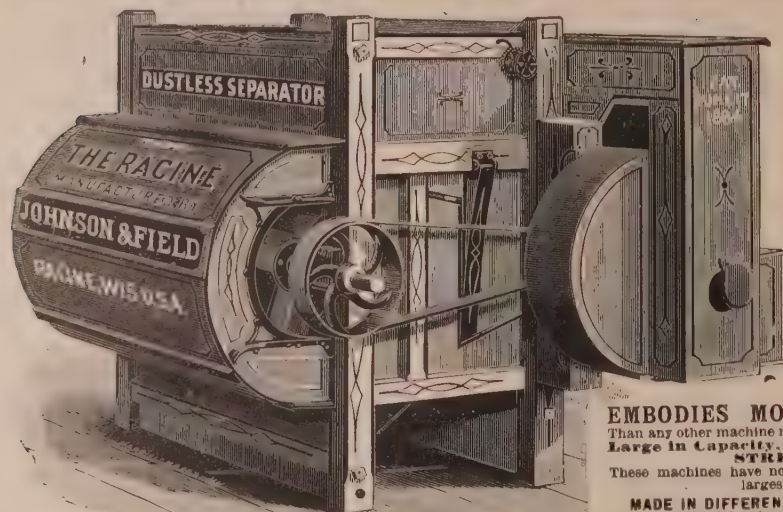
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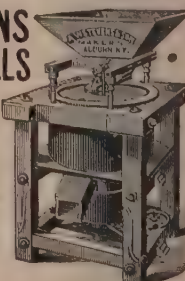
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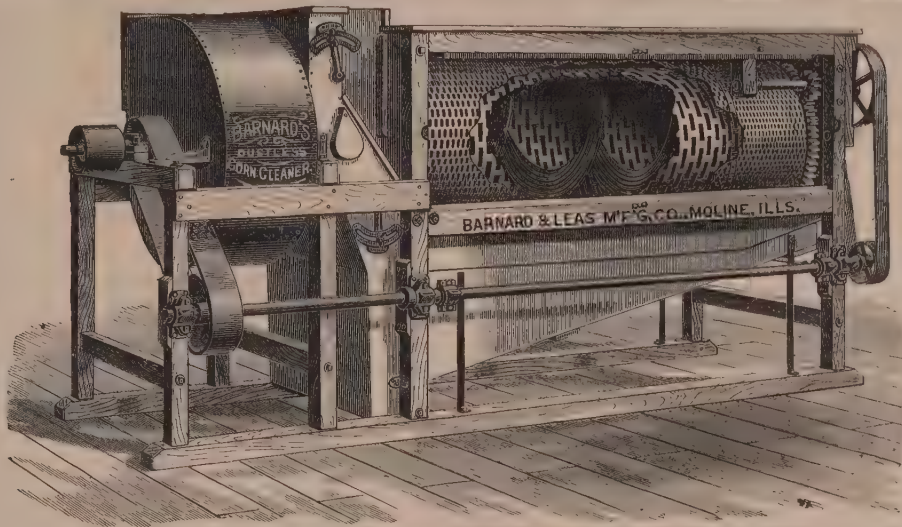
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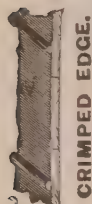
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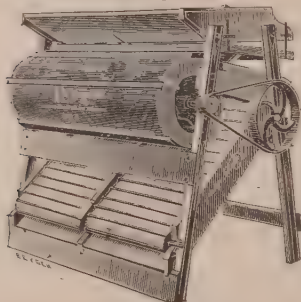


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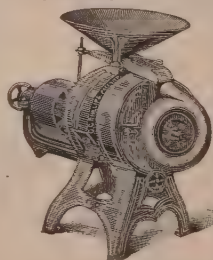
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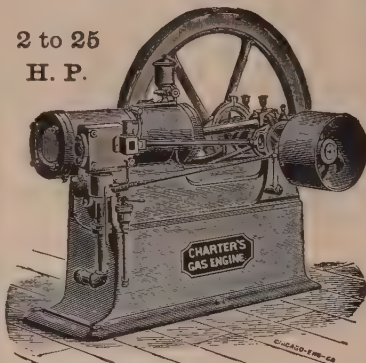
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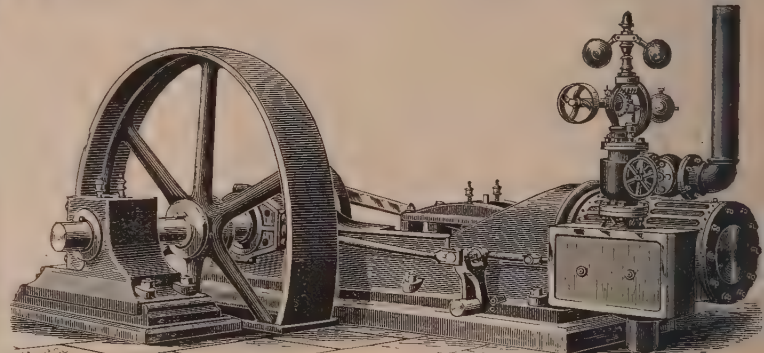
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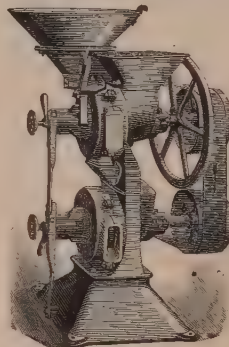
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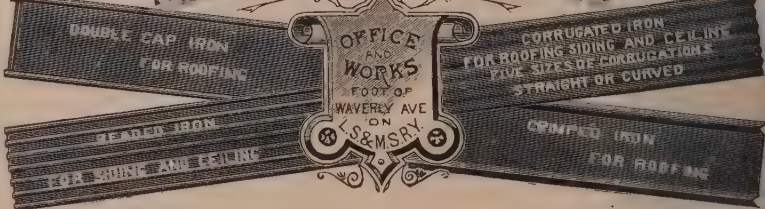
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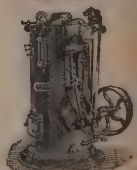
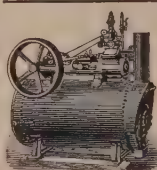
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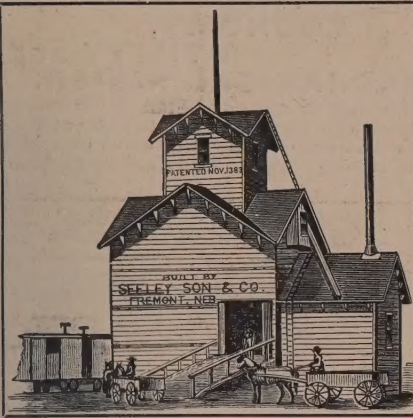
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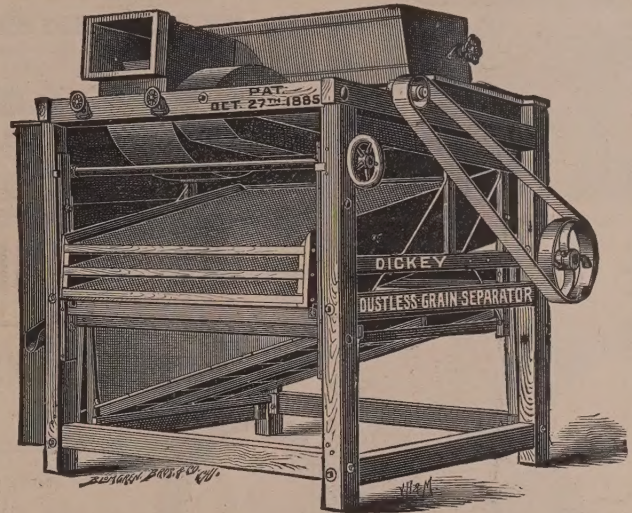
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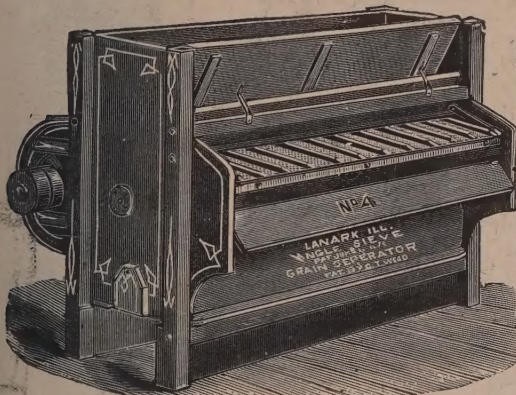
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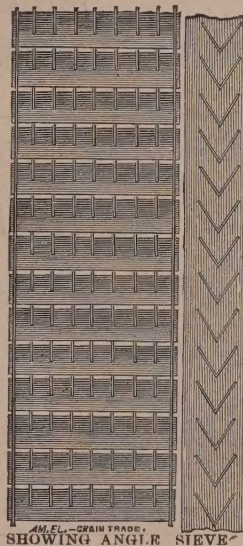
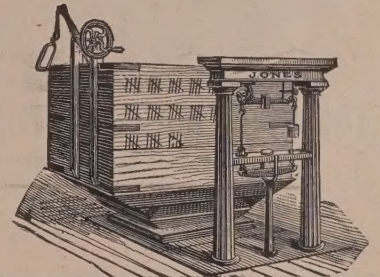
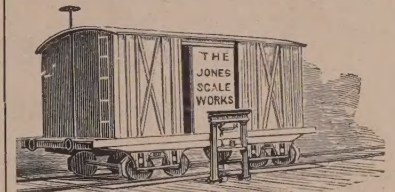
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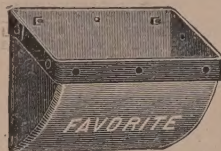
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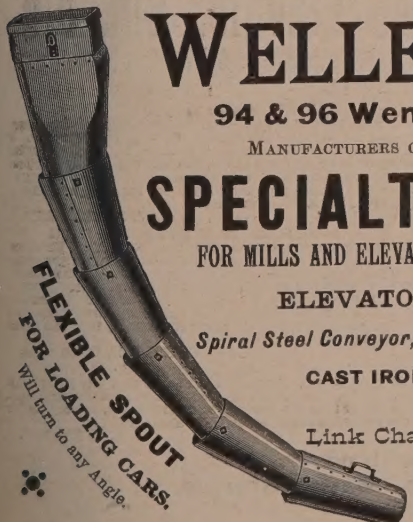
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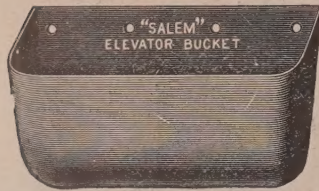
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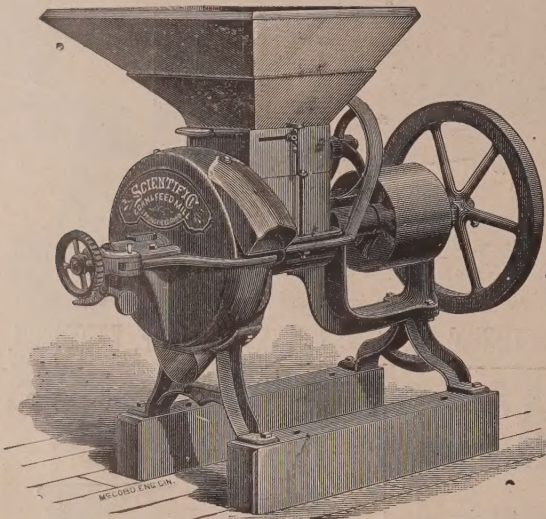
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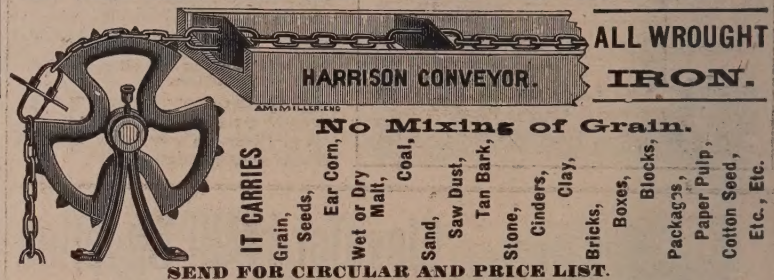
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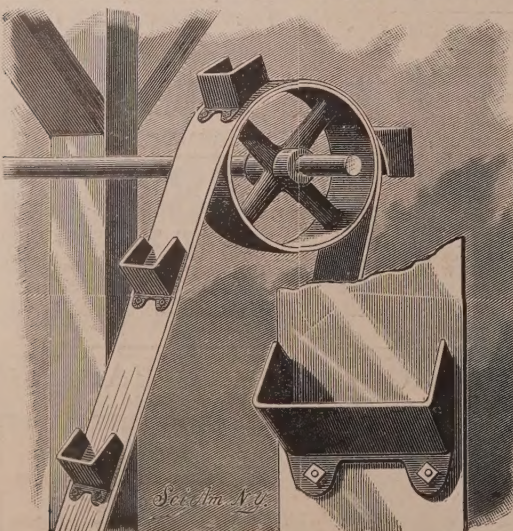
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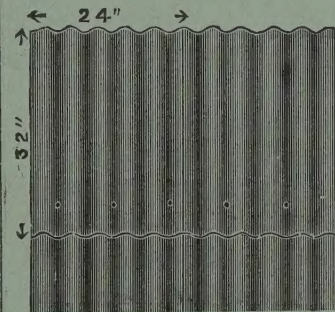


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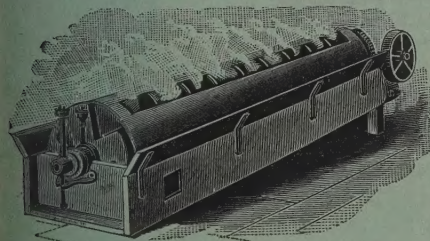
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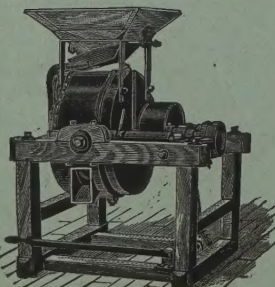
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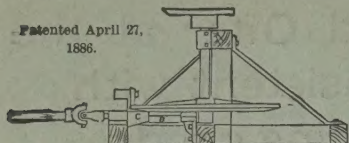
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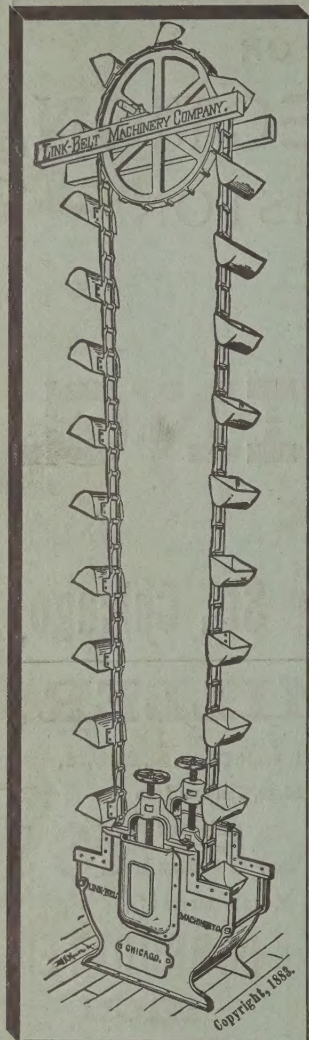
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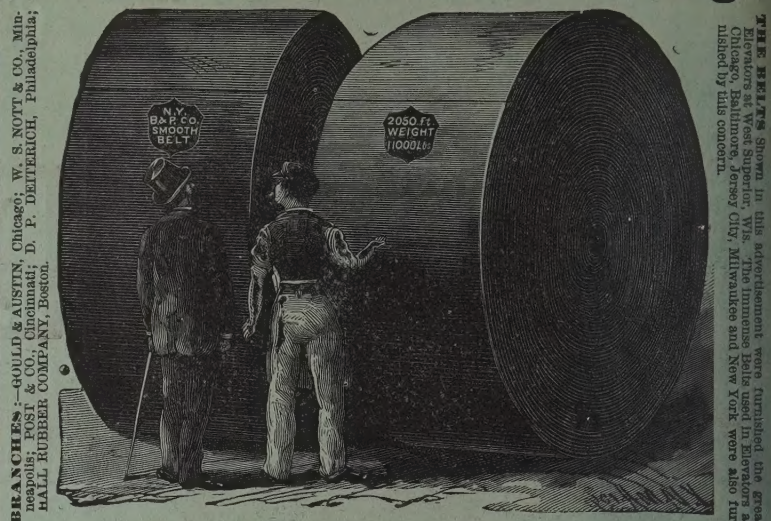
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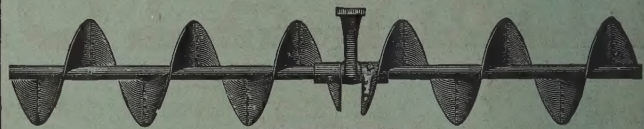


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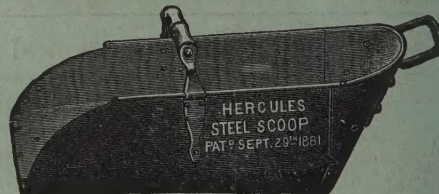
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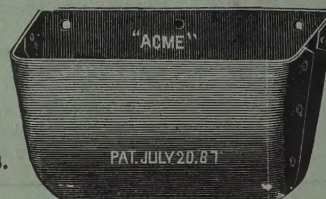
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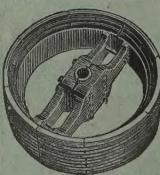
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